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TEXAS STATE JOURNAL OF MEDICINE

Volume 47 Number 4 Austin, Texas, April, 1951

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A

President's Page

IN RETROSPECT

As I write this President's page—my last—I am prone to look backward at the problems we have faced together during the past year. Because of lack of space, however, I must forego enumerating those problems and discussing how well or how unsuccessfully we have faced and solved them.

The duties of the President in most instances are closely related to the duties of other groups. This means that complete cooperation between the President and the various official bodies of the state organization is essential to the successful execution of our program. I have had full cooperation at all times, and for this I am sincerely grateful.

The headquarters staff, attorney, public relations advisers, and the Board of Trustees, as a body and as individuals, have meant much to me in dealing with some major problems. Likewise, the various councils and committees have assisted patiently and graciously at all times. Throughout the state the interest and cooperative attitude of individuals, county societies, and district societies has been keenly manifested, and I deeply appreciate the opportunities I have had to go before them to emphasize problems of mutual concern. I know the districts will give to future Presidents the opportunity to bring medicine's major problems to the grass roots. Only thus can our defensive and/or offensive efforts be kept on a base broad enough to be sound and effective.

The past is gone. No one can change it. The future is not within our grasp. Our destinies can be shaped now only by our unceasing efforts in the present. The fine doctors of the past are responsible for bequeathing to us a sound medical heritage. Those who are gone can do nothing to preserve this heritage; we must do that. Nor can they use the present to add to or make secure the future. This is our obligation. We not only can benefit from and preserve the glorious medical

achievements of the past but also can add to them greatly day by day if we choose.

Today we as doctors probably are acquitting ourselves well. But we are citizens also. Today we will see that the patient gets all the medical care he needs. Tomorrow, however, may be too late for us to preserve our citizenship and its coveted privileges, and too late for doctor or layman to preserve the opportunity to do the best for the patient.

Many of our problems are unfinished. They will never be finished. Legislation, public relations, education (particularly medical education), proper relationships of doctor to doctor, proper relationships between local and state organizations and the American Medical Association, compulsory and voluntary health insurance, and socialized medicine—all are major problems that will challenge the best in doctors henceforth. We must recognize these problems and prepare successfully to meet their challenge.

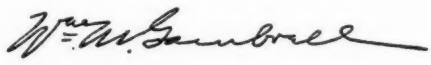
The future of doctors and the medical welfare of the people is not dark unless the citizenship is willing for it to be. Both doctors and laymen must unite in a common effort as never before to combat any influence which threatens to destroy the present doctor-patient relationship. It is up to physicians to educate laymen to do their part in this program.

To our President-Elect I extend cordial good wishes for a happy and successful year as President. With other members of the Association, I pledge my fullest support to him and all officers of the Association to make the year especially successful.

I wish to express my deepest appreciation to the Woman's Auxiliary for its wonderful cooperation throughout the year. Its service has been of inestimable value to the medical profession.

Mrs. Gambrell wishes me to express to the doctors of Texas her deep appreciation for their gracious assistance during her administration as President of the Auxiliary.

I will see members of the Association in Galveston with a heart full of appreciation to all for their wonderful counsel and assistance throughout the year.



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Volume 47 **Austin, Texas, April, 1951** **Number 4**

KNOWING THE STATE MEDICAL ASSOCIATION

A definite effort will be made through special exhibits and program features at the 1951 annual session of the State Medical Association to explain some of the activities which the Association, primarily through its central office, carries on throughout the year.

Recognizing that members of the Association have found it difficult to keep up with the various phases of their mushrooming program, officials of the organization have encouraged the presentation of facts about the routine activities for which the annual dues of each Association member are spent. Some of these facts will be displayed graphically at the session in Galveston the end of this month, and every visitor at the meeting is urged to examine these displays.

Needless to say, the central office staff is only the arm of State Medical Association officers, committees, and membership, carrying on full-time the projects which the Association authorizes and approves. The activities of the central office are as varied as the standing committees appointed by the President and as numerous as the physicians throughout the state who are members of the Association. It will be impossible in Galveston to show all of these activities, but several of the broad divisions of the central office will have exhibits.

The Library of the State Medical Association, which emphasizes its package service to physicians anywhere in the state and its motion picture film service, will have two displays in the Pleasure Pier. One exhibit in the Technical Exhibit area will show how a package is made to order and the other in the Motion Picture Theater will display as part of the Scientific Exhibits some of the films which may be borrowed from the Library.

The Relocation Service, which is operated in the central office under the direction of the Association's Council on Medical Economics, will display a map of Texas showing the locations where physicians are needed, locations where physicians have been placed through the efforts of the State Medical Association, and

other information pertinent to medical economics. This giant map will be displayed in the Technical Exhibit area in the Pleasure Pier.

The TEXAS STATE JOURNAL OF MEDICINE also will maintain an exhibit in the Technical Exhibit section of the Pleasure Pier. Physicians are invited to learn some of the steps taken by the staff in transferring material from a rough manuscript to the printed pages of the monthly publication which helps them to keep up with advances in medical science and records events of historical importance in the progress of medicine in Texas.

Public relations and legislative activities of the Association, part of which are carried on by official committees, part by advisers retained on a part-time basis, and part by the central office staff, will be explained to members of the Association by posters and literature in Room 201 of the Buccaneer Hotel. Further evidence of what the public relations division is doing will appear daily during the annual session in the newspapers of the state.

It is possible that other exhibits will hint at additional activities of the central office including efforts to furnish the armed forces with necessary medical manpower with least disruption of civilian health care, cooperation in working out the innumerable details incident to the erection of a new Association building, maintenance of accurate and detailed membership and personnel records, distribution of transcriptions of health programs for radio broadcast, and correspondence ranging from advice to a newcomer seeking to find a reputable cancer specialist to a call for a meeting of the Board of Trustees.

Members of the State Medical Association are asked to become acquainted with their central office through the exhibits which will be displayed in Galveston, through visits to the headquarters building in Austin, through questions to members of the staff as they see them in Galveston and at other meetings throughout the state, and through reading the printed, mimeographed, and typewritten communications (JOURNAL, bulletins, and letters) which come to them through the mail. Association officials directly responsible for operation of the central office and the staff employed there will welcome suggestions which may lead to more effective service to the membership and to the causes which that membership embraces. Practical suggestions, however, must be based on understanding of the situation as it now exists.

Although the work of the House of Delegates is not a part of the central office activity, except as arrangements for the meetings are worked out and the transactions are permanently recorded and published by the central office staff, members of the Association who will not participate in the sessions of the House as delegates are encouraged to become familiar with its functions and procedures by visiting one or more meetings in the Ballroom of the Buccaneer Hotel. Any member of the Association may attend all meetings of the House, although he may not vote and may not participate in the debate without special invitation from the House. Any member also may attend meetings of Reference Committees appointed to recommend action on business brought before the House of Delegates and may present arguments pertinent to that business. Such information about the times and places of meetings of the House of Delegates and Reference Committees as is not contained in the program may be secured from the Information and Message Desk in the Mezzanine Alcove of the Buccaneer Hotel.

One reason for having annual sessions is to help members become better acquainted with their Association, and every physician who comes to Galveston should remember that an informed member of the organization is a strong member of the organization.

AMERICAN MEDICAL EDUCATION FOUNDATION

The Trustees of the State Medical Association of Texas have warmly endorsed the present campaign of the American Medical Education Foundation and commend it to the favorable consideration of every physician in Texas.

What is it? How does it work? Who is behind it?

It is a "not-for-profit" corporation, organized by the American Medical Association under the laws of Illinois to gather and provide additional funds for hard pressed medical schools throughout the country. The American Medical Association led off with a half million dollar endowment from its own funds, originally allocated to the National Education Campaign.

A recent issue of *Medical Economics* says:

"The idea sprang from New England. It swept through AMA policy-making channels in a single day. It shows every sign of catching on with the profession at large. It may even touch off a national trend.

"The idea is simply this: Let private physicians take the lead in wiping out medical school deficits. Let them stage a cash counter-offensive to the drive for Federal aid.

"It's a tall order. The country's medical schools currently report operating losses that total about $10 million a year. Yet if only half the country's living physicians [give] $100 apiece [tax exempt—Editor's Note], they can balance the books all by themselves. And indications are that they won't have to tackle the job alone.

"Since the AMA announced its $500,000 pump-priming contribution, pledges have poured in from a variety of sources: pharmaceutical companies, medical publishers, equipment manufacturers, and the like. Once the campaign gets rolling, the AMA expects many unrelated businesses to chip in. The hoped-for goal: 'Several million within a few months.'

"... Dr. Elmer L. Henderson, AMA president, brought it into the open with a sharp warning to the [AMA] delegates: 'There are those who interpret the AMA's opposition to the bill for Federal aid to medical education as indifference to the problem.... We must make it clear that the profession is *not* indifferent. Let us face clearly our obligation, individually and collectively, to provide significant financial assistance to the medical schools.'"

To this, Dr. Louis Bauer, chairman of the Board of Trustees of the A.M.A., added: "The only thing we're certain of right now is that none of the money will be used for the administrative expenses of fund-raising. All of it will be funneled to the medical schools in accordance with need."

Other states have joined the crusade. One state medical association has pledged $100,000. Individual physicians, all over the country, are contributing.

Physicians have asked, "Can my contribution be channeled to the medical school of my choice?" The answer is an unequivocal "Yes."

Contributions received by the Foundation will be distributed to all approved medical schools in the United States. The funds will be given for unrestricted use—each school being entirely free to determine how best it can use its share to improve the basic training of its medical students.

Certainly, members of the medical profession alone cannot meet all the needs of the medical schools. Others must help. If the medical profession will lead the way, many others should be eager to make their contributions. By such a combined effort, success can be achieved.

It has been said that medical graduates, even though they have paid full tuition, contribute only 25 to 50 per cent of the cost of their education and therefore owe a moral debt to their medical schools. Many medical graduates recognize this moral debt and would be glad to discharge it in part after they become well established in practice.

State Medical Association headquarters will gladly forward contributions, which should be made payable to the American Medical Education Foundation, allocated to the general fund or the school of the donor's choice.

TO CONQUER CANCER

Cancer, which last year caused the death of almost 8,000 Texans to become second only to diseases of the heart as a cause of death in

the state, is the single major disease which has shown an increase among industrial workers in the past four decades. According to statistics released by the Metropolitan Life Insurance Company, the incidence of cancer increased 25 per cent as tuberculosis dropped 90 per cent, pneumonia and influenza dropped 88.7 per cent, heart disease and diabetes dropped one-third, and even accidents among industrial workers decreased by half. Such figures are of particular concern in these days when industrial output makes a significant impact on the defense effort and the anti-inflationary program of our country. Without a strong, healthy labor and managerial force, production must suffer.

April is Cancer Control Month. The Texas Division of the American Cancer Society in this period is making a concerted drive not only for funds to continue its research, service, and educational activities, but also to point up the fact that cancer usually can be controlled if it is discovered in time. Each family is being urged to guard itself against the disease.

The financial goal for the 1951 Texas Cancer Crusade is $500,000. Of each $1 obtained, 25 cents will go to cancer research; 17 cents to serve cancer patients (Texas has eleven tumor clinics partially financed by the Cancer Society); 17 cents for educational films, literature, and exhibits (Texas has twelve full-time cancer information centers operated by the Cancer Society); 15 cents to the nationwide program; 8 cents to keep Texas doctors informed of latest developments in cancer diagnosis and treatment; and the remainder in lesser amounts to other facets of the program to stamp out the disease.

Physicians should be better aware than others of the danger signals which might spell cancer and should be alert always to detect the disease in their patients. They can help educate the patients to be on the lookout for signs of cancer and to seek professional assistance when it is indicated. They can encourage participation by their patients and friends in the current crusade, and they themselves can contribute funds, time, and interest to this part of the year-round program to "fight cancer with knowledge."

DIAGNOSIS OF GASTRIC CANCER

Work on a new technique for dislodging and collecting cancer cells from the stomach, which may lead to an improved method of diagnosing early gastric cancer, will be supported by a grant of $20,000 from the Cancer Institute of the National Institutes of Health.

The cytologic or cell test, widely used in the diagnosis of cancer of the uterus, is applied to the stomach by means of the new technique, which permits adequate cell specimens to be withdrawn from the stomach wall for microscopic examination. If the specimen reveals characteristic malignant cells, surgical exploration to confirm the diagnosis, followed by more radical surgery in favorable cases, offers the patient an opportunity for survival, experts at the Cancer Institute explained.

The award will assist research by Dr. Herbert F. Traut and Dr. Milton Rosenthal at the University of California, San Francisco. Dr. Traut pioneered in developing the cytologic test in collaboration with Dr. George Papanicolaou, after whom the test is popularly named.

Dr. John R. Heller, Director of the Cancer Institute, said that cytologic examination of stomach cells for cancer is still in "an early, exploratory stage, and the Traut-Rosenthal technique may be considerably modified by the investigators before adoption as a standard diagnostic method. The first results, however, are quite encouraging, since small cancers were discovered that otherwise would probably have been missed. With usual detection techniques, only one-fifth of stomach cancer cases are discovered at the early stage when treatment is most effective."

Protests Home Remedy Advertising

Advertising copy of many home remedies today is suggestive of the so-called patent medicine era in its heyday, according to an editorial in the March 31 issue of *The Journal of the American Medical Association.*

"Undoubtedly the untruths are not as blatant as a few decades ago, but clever writing and careful display more than compensate for the limitations on deliberate fabrication," says the Journal.

It cites examples of some of the current advertising copy. Pointing to the large-sized type which is being used with startling statements to attract readers and with small print to provide more revealing information, the publication adds:

"The advertising copywriters probably are well aware that comparatively few people read fine print when large boldface words are nearby to distract their attention."

It continues: "Superlatives appear to be the order of the day. Simple adjectives apparently lack sufficient color and are relegated in today's copy to minor use or even to the wastebasket. By clever wording, promises are suggested which leave the reader believing that his health and other problems can now be solved without risk of failure. Perhaps testimonials are as simple, safe and effective as any promotional puffery for some types of products that lend themselves to such an approach."

ORIGINAL ARTICLES

BASAL CELL TUMORS: THEIR NATURE AND ORIGIN

STUART A. WALLACE, M.D., and JOHN R. THOMAS, M.D.,
Houston, Texas

FOR several years the belief that basal cell tumors are not malignant in the true sense and that they arise from skin appendages has been growing. Considerable evidence exists to support both contentions. Some authors have held to the old idea that the tumors were carcinomas; a few others have considered them benign.

MacCallum[4] called attention to their benign nature thus: "Krompecher has pointed out the fact that many of the tumors which grow in the skin and are distinctly derived from the epithelium are quite different in structure from the epitheliomata just described (squamous cell carcinoma), and quite as different in their biological characters. These comprise, in addition to many flattened irregular nodular masses, the so-called 'rodent' ulcers, which have long been known to differ from the ordinary epitheliomata, in that they are relatively benign and rarely show any tendency to metastasize rapidly."

MacCallum also stated "that they are sharply outlined against the stroma and show little inclination to strew their cells into the irregular crevices of that tissue. Doubtless this morphological character is an expression of their benign type of growth. The cells are rather small and compact, with deeply-staining nuclei and relatively scant protoplasm, which also takes a rather dark stain.... Upon extirpation, they show little tendency to recur, but even if there is a recurrence, it is exceptional to find metastases in the regional lymph glands or in more distant situations."

McCarthy[5] listed basal cell epithelioma under the heading of benign epithelial tumors and concluded that "the development of a basal cell tumor is in reality a sprouting or budding of undifferentiated and untransformed cells arising from the basal row of the epithelium of either the surface, the hair follicle or the sebaceous gland." Therefore, three recognized authorities in essence have agreed that basal cell tumors are benign or relatively benign growths.

A basal cell tumor is locally invasive and usually extends first laterally; it does not involve the regional lymph nodes nor does it produce distant metastases. In view of the enormous number of basal cell tumors, the occasional reports of different behavior are of importance. According to Teloh and Wheelock,[10] none of the metastasizing basal cell carcinomas pass the test of close investigation. The usual criteria of malignancy are anaplasia, invasion, and metastasis, the final proof resting with the last. Only by superficial examination would a basal cell tumor be regarded as anaplastic. In fact, such tumors produce a distinct pattern of their own with a picket fence arrangement of palisading peripheral cells not unlike the sheaths of hair follicles. Occasionally they even form abortive hair follicles. It is true that they are invasive; the cells with their stroma may infiltrate and gradually replace surrounding structures. The growth for some time does not extend into the deeper layers below the level of hair follicles.

Untreated or maltreated basal cell tumors may become destructive, laying bare large surfaces of the skin and destroying parts of the face, invading the orbit, and even reaching the base of the skull. However, invasiveness and tissue destruction may be caused by other benign neoplasms and lesions not considered neoplastic. An ameloblastoma or a craniopharyngioma may be just as invasive and destructive as any basal cell tumor. It is true that benign neoplasms usually grow expansively, pushing aside rather than invading the surrounding tissues. Admittedly basal cell tumors are invasive; however, they lack the most decisive characteristic of a malignant growth, namely metastasis to distant parts. Moreover, they also lack a biologic character recently assigned to malignant epithelial neoplasms, namely the ability to grow when transplanted into the anterior chamber of a guinea pig's eye.[8]

As to the cellular origin of basal cell tumors, the name denotes Krompecher's concept that they are derived from the basal layer of the epidermis. Doubt as to their origin from the basal layer has been expressed by Coenen,[1] Mallory,[6] Ricker and Schwalb,[9] and recently Lever.[2] From a study of 836 basal cell tumors, Owen[7] concluded that "my observations did not indicate that true basal cell carcinoma may occur on the mucous membrane." She also noted that undifferentiated squamous cell carcinomas have been mistaken for basal cell carcinoma.

It is common experience that basal cell tumors do not arise at the margins of long-standing chronic ulcers of the skin. When a carcinoma occurs at such

Read before the Section on Clinical Pathology, State Medical Association of Texas, Annual Session, Fort Worth, May 2, 1950.
From the Department of Pathology, Baylor University College of Medicine.

site, it is nearly always a squamous cell carcinoma. Occasionally basal cell tumors have been reported in teratomas (dermoid cysts) of the ovary in which skin appendages abound. It is therefore safe to conclude that basal cell tumors appear to be derived from cellular elements of skin appendages, rather than from the basal layer of the epidermis. The basal layer of cells in the epidermis is not the only one capable of cell division. According to Thuringer,[11] cell division occurs also in the adjacent spinous layer; in fact, multiplication in this layer is approximately three times greater than in the basal layer. Furthermore, basal cell tumors do not occur at sites covered by squamous epithelium in which no skin appendages are present, such as the oral cavity, pharynx, esophagus, vagina, and cervix uteri.

Among the neoplasms derived from skin appendages, those of sweat gland and apocrine gland origin are distinctive. Most of these have a glandular pattern and closely approximate the appearance of the structures from which they arise. Two benign neoplasms, the "turban tumors" and the so-called "clear-

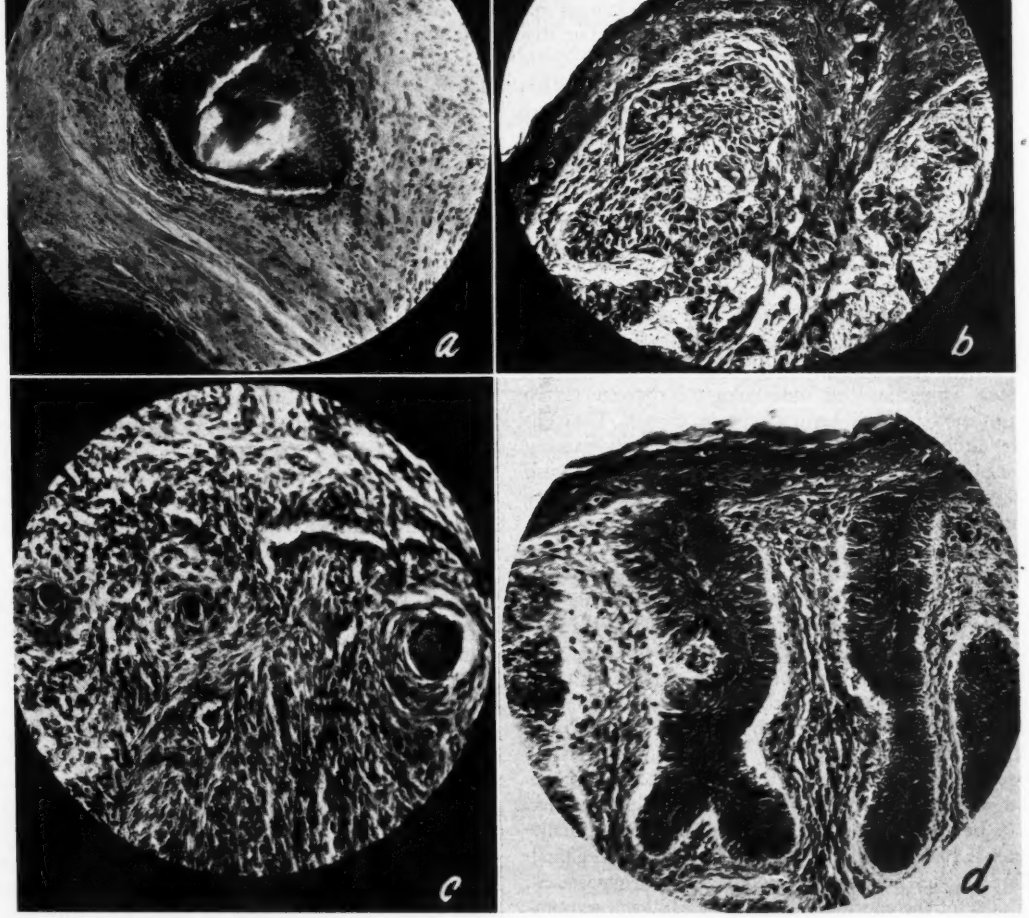

FIG. 1a. Low magnification photomicrograph of a basal cell tumor showing abundant keratin surrounded by typical basal cells. Many such structures represent an attempt of the tumor to form hair follicles. x 85.

b. Photomicrograph showing a basal cell tumor closely connected with a distorted hair follicle. x 163.

c. The three rounded keratinized structures shown in this photomicrograph are interpreted as attempts by the tumor to form hair follicles. x 163.

d. Photomicrograph of a basal cell tumor suggesting multiple origins from the basal layer of the skin and interpreted as arising from several hair follicles or remains of embryonic hair follicles. x 163.

celled tumors"[3] of skin are of interest. The turban tumors somewhat resemble basal cell tumors with a characteristic geometric distribution of hyalin change in the stroma. They are usually present in large numbers and may cover the entire scalp with large or small tumor nodules. Their microscopic appearance, plus the site at which they develop, is usually pathognomonic. The clear-celled tumors arising from skin appendages are slow growing and on biopsy may be confused with metastatic clear celled carcinoma of kidney. They seem to arise from Henle's layer of hair follicles.

Basal cell tumors have not been observed on the soles and palms, on which hair follicles and sebaceous glands are wanting. Nor have they been seen on parts of the fingers and toes on which only sweat glands are present. Since most of the benign neoplasms originating in skin appendages apparently have a structure of their own mimicking the particular appendage from which they are derived, the hair follicles logically become implicated in the origin of basal cell tumors.

SUMMARY AND CONCLUSIONS

A locally invasive epithelial neoplasm which does not spread to regional lymph nodes and which does not metastasize to distant parts cannot be called cancerous. Therefore, basal cell carcinoma is a misnomer and the term should be judiciously replaced by basal cell tumor. These growths appear to be derived from cellular elements of skin appendages rather than from the basal layer of the epidermis. Among the neoplasms derived from skin appendages, those derived from sweat glands and apocrine glands are distinctive. Therefore, in the derivation of basal cell tumors cellular elements of hair follicles become implicated.

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FIBROUS TUMORS OF THE SKIN

CHARLES T. ASHWORTH, M.D., Fort Worth, Texas

THE ordinary supporting tissues of the body are generally assessed to have a relatively unimportant role in the development of neoplasms. On the other hand, much attention has been given to more specialized systems of supporting tissues with respect to the genesis of tumors. Supporting tissue of peripheral nerves and that connected with development of synovial tissue have been studied rather extensively in this respect.

In the examination of surgical specimens, however, ordinary tumors which I believe are properly designated as fibromas constitute an important group. During an eighteen month period when surgical specimens from 28,899 patients have been examined, a total of 280 benign fibrous tumors of the skin and 25 fibrosarcomas were observed. It is realized that terminology varies in this group of tumors, and some of those which were classified as fibromas might have been placed in other categories by some observers. Also, the status of fibrosarcomas is rather confusing since many pathologists consider most of the fibrous appearing, spindle cell sarcomas to be neurogenic in origin. In the following discussion due allowance should be made for these variations of opinion in classification in considering the incidence of fibrous tumors.

I have chosen to consider the group of fibrous tumors of the skin because they represent the major incidence from a regional standpoint, and because the general features of the group of fibrous tumors are adequately demonstrated in those which occur in the skin.

Read before the Section on Clinical Pathology, State Medical Association of Texas, Annual Session, Fort Worth, May 2, 1950.

CLASSIFICATION

Difficulties arise in classifying this group of tumors because of the problem of separating neoplasms arising from specialized supporting tissue, especially nerve tissue, from those which represent growths of the ordinary supporting tissues. I have attempted to omit neurofibromas from the group. In some instances, as in all low grade neoplasms, the differentiation between reparative and other hyperplastic reactions from true neoplasms has been questionable. This is especially true in the group of keloidal tumors. In

the present study, to avoid confusion, keloids have been classified with the true neoplasms, and the fibrous hyperplasias of doubtful significance such as Dupuytren's contracture and Peyronie's disease have been omitted from the consideration. In the group of fibrous tumors which project from the skin surface and have a polypoid or papillary structure, it has been difficult occasionally to ascertain which, if either, constituent, the fibrous tissue or the epithelium, has been the primary tissue involved. Finally, the classification of fibrous tumors of the skin is complicated because of the tendency of certain other skin neoplasms to pass spontaneously through a natural seqence terminating in fibrous replacement. Undoubtedly, in some of these the characteristics of the original tumor are lost and the lesion is erroneously placed in the category of fibroma. This latter difficulty pertains to the group of papillary and polypoid fibromas. All of these factors must be taken into consideration and evaluated as sources of error in the recognition and study of fibromas of the skin.

TABLE 1.—*Classification of 305 Fibrous Tumors of Skin.*

Type	No.
Dermatofibroma	216
Pedunculated fibroma	36
Keloid	24
Myxoma	4
Fibrosarcoma of dermis	5
Fibrosarcoma of subcutaneous tissue	20

Table 1 outlines the different types of fibromas of the skin and the incidence of the different types as encountered in this survey.

DERMATOFIBROMA AND FIBROXANTHOMA

Synonyms in the group of dermatofibromas[3] and fibroxanthomas are legion and indicate the variety of opinions regarding their histogenesis. The most commonly used names are subepithelial fibrosis, histiocytoma, and sclerosing hemangioma. These tumors are more commonly located in the skin of the lower extremities, arms, and trunk in that order of frequency. An interesting observation in this group of cases was that none of these tumors was located in the skin of the face. These tumors are strictly dermal in location and are firm or hard. They measure from 2 to 3 mm. to 15mm. in size. They manifest a slow rate of growth, often dating back over a period of several years with little increase in size.

Usually these tumors assume little clinical importance except from the standpoint of differential diagnosis. Their importance in this respect is not to be neglected, as shown by the numerous variegated clinical diagnoses, such as cyst, metastatic carcinoma, nevus, scleroderma, epithelioma, and leprosy, which were offered in this series. A confusing element clinically in these tumors involves the changes which may be present in the overlying epidermis. In the group reported here there were 4 cases with distinct papillomatous changes in the epidermis, in 1 a basal cell epithelioma was present over the fibroma, and in the majority the epidermis was thickened and hyperkeratotic. Whether these findings indicate a simultaneous neoplastic involvement of the fibrous and epithelial elements of the skin or whether the underlying fibroma predisposes to the changes in the epidermis cannot be stated from these observations.

The histologic structure of these tumors was well illustrated in the 216 cases of this series. Lesions of the smallest size appear in considerable numbers and can be assumed to represent the earliest stages. There is a rather uniform structure regardless of size, although in some instances the constituent cells are more of the fibroblastic type, while others assume the composition of more mature fibrous tissue cells. The characteristic structure is that in which short bundles of the fibrous cells interlace and produce a compact arrangement. Some of these tumors, 12 per cent in this series, have foamy cells due to lipoid content. These are the dermatofibroxanthomas. All stages of lipoid storage are seen but in most cases the tumor with the histologic characteristics of xanthoma have an opaque yellow appearance. Aside from lipoid storage in the tumor cells, the histologic features are the same in the dermatofibromas and the dermatofibroxanthomas, a characteristic which indicates that basically they are the same type of neoplasm. The lipoid deposition is actually within the tumor cells which seems to lend support to the histiocytoma theory of origin. The presence of collagen, however, in all tumors of the group signifies that primarily the cells are fibrous in type, although according to present concepts there is little difference except stage of development between reticulum-producing histiocytes and collagen-forming fibrocytes. In this group of tumors there was no evidence which would indicate that the dermatofibromas are a late sequel of hemangioma, that is, sclerosing hemangioma. Some of them have been of known short duration and histologically the tumors were small, evidently indicating the earliest stages of growth. In

TABLE 2.—*Characteristics of 100 Dermatofibromas.*

Age:	Range	19-55 yr.
	Average	34 yr.
Sex:	Male:female ratio	1:4.5
Duration:	Range	1 mo-12 yr.
Location:	Lower extremities	44%
	Upper extremities	24%
	Chest	15%
	Hip and buttocks	10%
	Back	5%
	Abdomen	2%
	Head and neck	0%

these cases there was no evidence of a preexisting vascular neoplasm.

Generally speaking these tumors are known as innocent lesions of limited growth capacity and with little if any tendency to develop into aggressive neoplasms or fibrosarcomas. However, as noted hereafter, by virtue of the histologic similarity, it is possible that they may have some relation to fibrosarcoma of the skin, of the type originating in the dermis. In this series of cases are a few dermatofibromas of larger size with more cellular composition and a few mitoses suggestive of a stage of transition toward dermal fibrosarcoma.

PEDUNCULATED FIBROMA

I have excluded from the group of pedunculated fibromas the small lesions called by dermatologists "skin tags." These are extremely common, however, even though they are seldom brought to the attention of the surgical pathologist. They are composed of fibrous tissue primarily, and by all rights should be included in the group of fibromas.

Thirty-six of the cases in this series were of the papillary or polypoid type of fibroma of the skin. There are gradations between papillary and polypoid lesions and it appears that they are closely related. The pedunculated fibromas are common about the breasts of women and are found in other portions of the body with considerable frequency. They are apparently self-limiting in size, although rarely tumors several centimeters in size are found. Most of them are from 5 to 10 mm. in diameter. Some of the polypoid tumors have adipose tissue admixed with the fibrous component; the usual structure is pure fibrous tissue in which no increase in cellularity is apparent, but blood vessels are more prominent than in normal dermis.

TABLE 3.—*Characteristics of Pedunculated Fibromas.*

Age: Range		17-60 yr.
Sex: Male:female ratio		1:2.6
Duration		3-38 yr.
Location:	Breast	35%
	Vulva	20%
	Back	15%
	Neck	10%
	Hip, buttock, cheek, and chest	20%

An incident occurring in approximately 50 per cent of the cases in this group of pedunculated fibromas is that of hemorrhagic infarction, with ulceration and secondary infection of the lesion or some lesser degree of circulatory disturbance. This alteration as the result of twisting at the pedicle or thrombosis from infection and trauma appears to be one of the major factors leading to excision of these growths.

The papillary pedunculated fibromas are to be differentiated from the group of squamous papillomas of the skin. In the fibromas, the epithelium seems to be involved secondarily, and the folded structure is apparently dependent upon a lobulated type of growth in the connective tissue.

FIBROUS END STAGES

Although as noted previously dermatofibromas, which have been designated by some[2] as sclerosing hemangiomas, do not in my opinion reveal any evidence of angiomatous origin, it is believed that a few fibrous tumors of the skin represent hemangiomas which have undergone spontaneous fibrosis with partial replacement of the vascular elements. These may come to resemble dermatofibromas to some extent. However, the history of a preceding vascular tumor of long duration should serve to suggest the correct histogenesis. Histologically these lesions will reveal vascular channels in recognizable form and the fibrous replacement is a scar-like formation, with none of the cellular fibroblastic structure of dermatofibroma. Because of the confusion in terminology, it is recommended that these tumors be referred to as fibrous stage of hemangioma or some other name of similar meaning rather than sclerosing hemangioma, since the latter name has come to be more or less synonymous with dermatofibroma. It may be noted here that, although dermatofibromas do not occur on the skin of the face, hemangiomas of the various types which might undergo sclerotic changes are common in this location.

In the group of pedunculated tumors, undoubtedly some are dermal nevi which have undergone regression with complete loss of nevus cells. The observation that many of the unpigmented pedunculated skin tumors have minimal remnants of the nevus cells would seem to indicate that this is the case. However, unless nevus cells are found, the origin is uncertain. Just how many of the lesions designated as pedunculated fibromas are actually fibrous stages of nevi cannot be answered at this time.

Another lesion of the skin which assumes fibrous properties is the deep nevus. There is a striking similarity of this tumor to dermatofibroma. Size, position in the dermis, and the spindle, fibrous cell composition are much the same. I have seen a few such deep nevi in which melanin occurred rarely, and grossly the lesions appeared as nonpigmented or only slightly pigmented lesions. Whether these deep nevi ever actually become completely free from melanin I cannot say. If they do, however, it would be extremely difficult to differentiate them from dermatofibromas.

Neurofibromas of the skin apparently maintain their identity throughout their natural course. Occa-

sionally the differentiation of the subepidermal neurofibromas from dermatofibromas is difficult. The heavy collagenous formation of the latter and the tendency of dermatofibroma to develop a xanthomatous component are helpful in this differentiation. It is of some interest to note that in the material considered in this survey only 20 neurofibromas were found, while 216 dermatofibromas were observed.

KELOID

The low incidence of post-traumatic keloids in the present series is explained by the low incidence of Negro patients seen by the physicians from whom the surgical material was submitted. Altogether, 24 keloids were seen in this period; of these 4 apparently were spontaneous in origin. The histologic findings in the post-traumatic and spontaneous groups were similar. Grossly the spontaneous keloids showed less tendency toward the development of projecting tumors than the post-traumatic keloids. Curiously, some of the spontaneous tumors had an elongated shape, measuring up to 4 by 1.5 by 1.5 cm. They seemed to be somewhat deeper dermal growths than the post-traumatic group.

These spontaneous keloids bear a close resemblance on the one hand to the desmoid tumors of the abdominal wall and on the other to the low grade fibrosarcomas of the dermal portion of the skin. Also, it is of interest to note a composition similar to that of the fibrous portion of the lesion gynecomastia. This latter similarity suggests the possibility that local estrogenic effect may have something to do with the genesis of these tumors. Evidence pertaining to the frequency of recurrence locally or to the subsequent development of fibrosarcoma is lacking in this group of cases of spontaneous keloid since the period of time elapsing in these cases is too short. However, I believe, because of their histologic character, that the possibility of local aggressiveness should be kept in mind. This is a characteristic well known to surgeons. Some observers use the designation of desmoid tumors for certain extra-abdominal lesions. It is possible that the so-called extra-abdominal desmoid tumors and spontaneous keloids fall in the same category.

MYXOMA

The problem of myxoma of the skin is difficult because tumors of known histogenesis may present prominent myxomatous characteristics. This is especially true in neurogenic tumors and in lipomas of the myxolipoma type. By far the greatest number of myxomatous tumors of the skin and subcutaneous tissue that I have seen have been in the myxolipoma group.

In the present series there have been 3 cases of pure myxoma of the dermal layer of the skin and in the subcutaneous tissue of the popliteal space. In these no evidence of lipomatous or neurogenic nature could be found. These neoplasms presented typical mucinous, viscous fluid on gross examination. The cells were spindle and stellate in form. In 2 instances a capsule was missing, and myxomatous tissue extended into the adjacent subcutis. In the other 2 cases, however, a distinct capsule was found grossly. The cells in these myxomas showed no anaplastic qualities and the degree of cellularity was slight. Because of these features it is considered that they should be separated from myxosarcomas, which usually are of subcutaneous rather than dermal location. However, the absence of a suitable capsule and the known behavior of myxomatous tumors lead one to be cautious about these tumors and to consider them to possess locally aggressive qualities and a strong possibility of local recurrence unless wide excision is carried out.

FIBROSARCOMA

In the fibrosarcoma group it is of great importance to differentiate between the tumors which originate in the dermis and those arising in the subcutaneous tissues.[4] The latter are much more dangerous and tend to follow the treacherous pattern characteristic of sarcomas in general. Sarcomas of the fibrous type arising in the dermis are almost invariably of low grade malignancy.

Dermatofibrosarcoma protuberans[1] is a characteristic lesion of which there are 5 examples in the present group of cases. These arise as single or multiple nodules in the dermis and grow very slowly. After removal, however, they have a strong tendency to recur locally, even though many years may elapse before this occurs. Stout[4] referred to an interesting case in which recurrences developed over a period of forty-four years. Metastases occur rarely if at all.

TABLE 4.—*Comparison of Characteristics of Fibrosarcomas of Subcutaneous Tissue and Dermal Fibrosarcomas.*

	Fibrosarcoma of Subcutaneous Tissue	Dermal Fibrosarcoma
Total number	20	5
Age: Range	5 wk.-45 yr.	25-65 yr.
Sex	7 males; 13 females	3 males; 2 females
Duration	5 wk.-4 yr.	9 mo.-several yr.
Size	12 mm.-14 by 10 by 8 cm.	7 mm.-20 mm.
Location:		
Head and neck	8	1
Upper extremity	3	1
Chest	3	1
Back	2	
Lower extremity	2	2
Abdomen	2	

Histologically, there is some difficulty in differentiating these lesions from dermatofibromas. I have encountered a few borderline cases of dermatofibromas which strongly suggested a transition to dermatosarcoma. They have much the same pattern of struc-

ture and it appears that the two may be closely related. In dermatofibrosarcoma the fibrous cells are larger with a greater amount of chromatin in the nuclei. Mitoses are seen but certainly are not numerous. In the great majority of dermatofibromas mitoses are not encountered. Size of the tumor is a helpful point in differentiation since it is rare to find dermatofibromas more than 10 mm. in diameter, whereas most dermatofibrosarcomas are usually larger than this and may measure 2 or 3 cm. in size. However, one lesion in this series was only 7 mm. in diameter. Xanthomatous changes which are common in dermatofibromas are not encountered in the sarcomas.

The great majority of fibrosarcomas of the dermis will fall in the category of dermatofibrosarcoma protuberans. However, there was 1 case of a fibrosarcoma of the dermis of the eyebrow in which the degree of malignancy was marked histologically. Interestingly enough, this tumor was only 7 mm. in diameter and grossly it was indistinguishable from dermatofibroma. Except for the fact that dermatofibromas were not found in this group of cases in the face and scalp regions, I would be inclined to think that this case of highly malignant dermal sarcoma had originated in a dermatofibroma. Its location in the eyebrow, however, strongly bespeaks an independent origination.

Fibrosarcoma of the subcutaneous tissue is a more common tumor than dermal fibrosarcoma. The variety of anaplastic appearance is great and tumors of intermediate and high degrees of malignancy, as well as low grade fibrosarcomas, are observed. In the present series there were 20 cases of fibrosarcoma of the subcutaneous tissue. It is in this group that the question of neurogenic sarcoma arises. I agree with Stout[4] that in the majority of these fibrous, spindle-celled sarcomas there is no convincing evidence of neurogenic origin and that the designation of neurogenic sarcoma has been over-applied. Certain malignant tumors that present a definite neurogenic quality are seen in the subcutaneous tissues, but these are less common than the group presenting a simple fibrous structure. Because of the strong tendency toward local recurrence and for metastasis to occur, especially in those of intermediate and high grades of malignancy, the subcutaneous fibrosarcomas must be approached by vigorous action, consisting of wide local excision. In contrast, the natural history of the dermal fibrosarcomas provides a basis for greater conservatism in local excision.

SUMMARY

Of 305 cases of fibrous tumors of the skin herein reported 280 were benign, the majority of which belonged to the group of dermatofibromas. Twenty-five fell in the category of fibrosarcoma of the skin and subcutaneous tissue. Pedunculated fibromas, keloids, and myxomas were included in the group of benign fibrous tumors.

Some of the clinical and pathologic features of these neoplasms are discussed. Fibrous end stages of other skin neoplasms are briefly considered in the differential diagnosis of fibrous tumors of the skin. Dermal fibrosarcoma or dermatofibrosarcoma protuberans are described and differentiated from true fibrosarcoma, which usually is a subcutaneous neoplasm.

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ABSTRACT OF DISCUSSION

DR. A. O. SEVERANCE, San Antonio: Dr. Ashworth has covered his subject thoroughly and has handled the touchy problem of classification discreetly. The great frequency with which dermatofibromas are observed—216 out of 280 benign skin tumors of fibrous type—probably results because most of them show pigmentation and arouse the interest of the clinician. Occasionally this tumor can show enough cellular unrest and mitotic activity to raise the question of malignant change. Yet I know of none that did metastasize.

I also have considerable trouble trying to decide what to call the elevated soft pedunculated lesions with normal epidermis and almost normal connective tissue as a central core. Should they be called papillomas or fibromas? Strictly speaking, the latter is probably preferable, as Dr. Ashworth indicates.

PENICILLIN THERAPY IN ALLERGIC CHILDREN

Results of using repeated injections of penicillin in more than 200 allergic children for various infections were described recently by Drs. Samuel J. Levin and Selma S. Moss of Detroit at a meeting of the American College of Allergists in Chicago. The doctors found that sensitivity to penicillin after repeated injections is extremely rare in allergic children, as compared to the more frequent occurrence of sensitivity to penicillin in adults. Of the 200 allergic children treated, most of whom were asthmatics, only 1 child developed any sensitivity reaction.

Autoradiography Course

The Special Training Division of the Oak Ridge Institute of Nuclear Studies has announced a course in the theory and techniques of autoradiography which will begin July 2 and continue for three to four weeks.

Applicants, who must have completed the Institute's basic radioisotope techniques course or possess equivalent experience to qualify, should write Ralph T. Overman, Chairman, Special Training Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tenn., for detailed information and application forms.

TUMORS OF THE PAROTID GLAND

Surgical Removal With Particular Reference to Protection of the Facial Nerve

JAMES GREENWOOD, JR., M.D., Houston, Texas

THE occasional facial paralysis which follows removal of a tumor in the region of the parotid gland is extremely disturbing to both patient and surgeon. A study suggested that perhaps facial nerve injury could be avoided in a higher percentage of cases and that in instances in which injury was unavoidable, methods of repair offered much in restoring facial symmetry and motor function.

Cooperative effort between two specialties is not seen with sufficient frequency, yet the common knowledge of one specialty often may solve easily a problem of another if that knowledge is sought. This principle was well illustrated recently when a general surgeon who was skilful in removing cancer from about the head and face suggested to me new logical approaches to acoustic and suprasellar tumors. This paper reaffirms the need for greater cooperation between specialists. Removal of parotid tumors is not a neurosurgical procedure, but a neurosurgeon's studies on the facial nerve may prove useful to the general surgeon who elects to operate upon such lesions.

ANATOMY AND PHYSIOLOGY

After emerging from the stylomastoid foramen, the facial nerve passes forward through the parotid gland dividing into upper and lower branches. These branches soon divide further from above downward into five main divisions: temporal, zygomatic, buccal, mandibular, and cervical. There are numerous communications between branches of the facial nerve so that in dissection it looks more like a plexus than a peripheral nerve. This network may account for the power of regeneration of the facial nerve. Work done on hemifacial spasm indicates that if one of the two primary branches is injured, the ensuing paralysis of the upper or lower part of the face is severe and permanent; however, if only one or two of the divisions is cut at a point at which five or six divisions exist, no paralysis may be noticeable even immediately after surgery. For this reason, if the nerve separates into four or five divisions before it enters the region of the tumor, little likelihood of paralysis is present since one or possibly two divisions could be sacrificed with impunity. On the other hand, if division occurs in or beyond the tumor area, great care must be exercised in separating the larger nerve trunks from the tumor; otherwise some paralysis is sure to result.

Observations also indicate that the facial nerve, particularly its smaller divisions, has great power for regeneration; this phenomenon is probably true of any small nerve. In partial sections of the nerve for hemifacial spasm, it is not sufficient to ligate the cut ends with silk and tie them back. Reexploration indicates that they escape from the suture and that sufficient fibers find their way back into the distal cut ends completely to restore function. Only by enclosure of the nerve endings in tantalum foil can this restoration of function be circumvented.

This power of regeneration indicates an optimistic outlook in cases in which one or more small branches of the nerve must be sacrificed along with a tumor. It also suggests that when branches are cut, every effort should be made to bring them into some kind of apposition since with the smaller filaments even the poorest suturing may succeed. The same optimistic note is present when another nerve such as the hypoglossal is anastomosed into a hopelessly damaged facial nerve; this is one of the few places at which nerve grafts are likely to succeed. I have had no failures in hypoglossofacial or spinofacial anastomosis. Nevertheless, if during removal of a parotid tumor the main trunk or one of the two major divisions of the facial nerve is sacrificed, permanent paralysis must be anticipated unless restorative measures are taken. Embryologically the nerve develops medial to and separate from the gland, but the gland structures grow to envelop the nerve. Often the anterior portion of the gland lies entirely superficial to the nerve.

LITERATURE

Surprisingly, and I am sure intentionally, much of the literature on the surgery of parotid tumors does not mention the existence of the facial nerve. Sistrunk[7] and Adson and Ott[1] first described detailed methods for preserving the facial nerve, the essential feature being isolation of the nerve before attempting removal of the tumor. More recently similar methods were described by Furstenberg[4] and Burch and Fisher.[2] Marshall and Miles[6] reported a series of parotid tumors from the Lahey Clinic with observations on the frequency of facial nerve injuries (14 per cent). It was pointed out that nerve injury was greatest in carcinoma, 25 per cent; less in mixed tu-

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mors, 6 per cent; and nonexistent in 5 cases of cystadenoma lymphomatosum.

PATHOLOGY

Commonly, tumors of the parotid gland arise superficial to the facial nerve and push it medially or downward. Only rarely does the tumor arise underneath the nerve. The more common tumors are mixed tumor, cystadenoma lymphomatosum, and carcinoma. The first two are relatively benign and their moderate degree of encapsulation makes complete removal of the tumor with preservation of the nerve feasible in practically every case.

SURGICAL TECHNIQUE

A method of electrical stimulation[5] used in the treatment of hemifacial spasm has been considered applicable to the surgery of parotid tumors and its use in 6 of my cases supports this belief. An alternating current of 60 cycles with voltage varying from .5 to 2 volts is used. One needle is inserted with its tip at the stylomastoid foramen, with the tips of the mastoid and styloid processes being used as a guide. This needle is left in place throughout the operation so that the function of the nerve can be tested at any time. The patient is so draped that after the nerve area is exposed, the removal of one sterile towel will reveal part of the side of the face so that movements may be observed by the operator. A sheet of lucite or cellophane could be used over this opening. As the operation proceeds a second needle is used at various points to anticipate the presence of the nerve trunk or its divisions. At any time the function of the nerve as a whole may be tested by stimulating the first needle at the point of emergence of the nerve. At no time is any deep incision made without first introducing the second needle with current applied to determine in advance whether or not nerve elements will be found in this area. This needle should not be inserted into the tumor area as a rule, and should be used only until all divisions of the nerve have been located.

The divisions are dissected out from behind forward and isolated from the tumor. It is often necessary to elevate the tumor to allow this to be done. Often after the first 1 or 2 cm. are dissected out, it will be found that the nerve divisions are entirely separate and under the parotid; when this occurs, there is no longer any danger of nerve damage, as the whole gland can be removed if desired. If one or two small divisions of the nerve go through the tumor, these may be sacrificed without loss of function, but only if it can be determined that such involvement does not include all of either the upper or lower major divisions. Full exposure of the facial nerve should determine this point.

If it is necessary because of invasion to sacrifice some of the nerve, a step rarely necessary except in carcinoma, an attempt should be made to reunite the opposing ends of the sectioned divisions. Experience indicates that even when such reunion is technically poor, the chance of regeneration is good. Fine silk or plasma suture may be used. The removal of gland and tumor[8] makes possible a more direct route so that suture is possible even though a segment of nerve has been removed. Nerve grafts also may succeed in the repair of the nerve or its divisions. An ingenious method of repair in which only the terminal filaments of the seventh nerve remained has been described recently by Coleman.[3] He followed the spinal accessory nerve until it split into several divisions. These he turned up and sutured into the ends of the facial nerve. It is obvious that in any malignancy except early and low grade types, there must be some sacrifice of the nerve.

RESULTS

Of 6 patients upon whom I operated, 3 had carcinoma; 2 mixed tumors; and 1, a child, a malignant fibrosarcoma. Such a small group offers nothing statistically and indicates only that the neurosurgeon is referred the difficult cases. All but 1 patient had had a previous operation and 2 had had roentgen or radium therapy. One of the 6 already had considerable facial paralysis, which surprisingly improved after surgery for carcinoma. In the remaining 5, what appeared to be a complete removal was accomplished. Although the tumor recurred in 2 patients and a third died from brain metastasis, all 3 had been operated upon elsewhere before and fear of damage to the facial nerve did not prevent a more radical resection since the nerve was entirely free in all cases at the time of completion of the removal. In no patient except the 1 already having facial nerve involvement was there any evidence of paralysis the day after surgery. In 1 patient rough handling of the nerve produced paralysis and loss of electrical stimulation, but on the following day this had disappeared.

SUMMARY

A technique for removal of tumors of the parotid gland which has been found useful, particularly in regard to protection of the facial nerve, is described. Electrical localization and periodic testing of the nerve in this procedure greatly increases the confidence of the surgeon and increases the speed and safety of surgery of these lesions.

The anatomy and physiology of the facial nerve are described with reference to how divisions may be sacrificed without fear of loss of function and how repair may be accomplished in the case of damage. As a rule, the nerve can be completely spared.

The results in 6 difficult cases are reported.

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ABSTRACT OF DISCUSSION

DR. W. HOWARD WELLS, Waco: In an article recently published by Frank Lathrop* of the Lahey Clinic there is an excellent discussion of preservation of the facial nerve in parotid tumors. These tumors, as is generally conceded, are usually mixed tumors containing epithelial cells, mucoid connective tissue, cartilage, and lymphoid tissue. However, I have seen some variation: a child 2 years of age had a neurogenic fibrosarcoma and an adult had tuberculosis of the parotid gland. These to date have shown no evidence of recurrence. It also is generally conceded that parotid tumors tend to recur when not completely removed and that their invasiveness becomes more pronounced with each attempt at removal. In one instance, after three attempts the tumor had protruded so that it almost made the tonsil pedunculate in the throat and required division of the mandible and dissection of the neck to remove all parotid tissue.

A fact which needed to be brought to the attention of the general surgeon has been pointed out ably by Dr. Greenwood: the facial nerve is exceedingly important both to the patient and to the surgeon; therefore, everything that can be done to preserve it is worth while. The nerve usually can be preserved readily with an incision dissecting down on the base of the styloid process and picking up the facial nerve as it courses laterally over the styloid process. However, in large tumors preservation of the facial nerve is exceedingly difficult and I have found that control of the external carotid artery keeps a much drier field so that a more complete operation can be done and the filaments of the facial nerve can be seen and preserved. Usually control of the carotid artery is achieved by extending the incision slightly down along the anterior border of the sternomastoid process, picking up the external carotid artery, and placing a rubber band under it. Traction on the rubber band can control the flow of blood through this vessel and the band can be released readily once the operation is terminated.

In controlling the external carotid vessel, the mandibular division of the facial nerve is encountered; by slipping a small rubber band under this division the surgeon can dissect it back to the cervicofacial division, thereby showing the main portion of the facial nerve where it divides in its temperofacial and cervicofacial divisions. By slipping rubber bands under the parent trunks the filaments of the facial nerve may be dissected free from the parotid tumor, which is usually the superior portion. Concurring with Dr. Greenwood, I have found little, if any, permanent paralysis when the terminal filaments are sacrificed if these main trunks are preserved. Often the patient will have some degree of paralysis for a few days or weeks, but this difficulty has cleared entirely within six weeks.

I have made it a practice in elderly patients who have had a tumor for many years and have shown no recent growth or change to let the tumors strictly alone. Patients with a tumor and paralysis before surgery most often have a carcinoma of the parotid gland, and in these cases, if necessity demands, the entire nerve is sacrificed with the hope that the neurosurgeon later can help with a hypoglossal anastomosis or some type of sling procedure.

*Lathrop, F. D.: Technic of Exposing Facial Nerve as Aid to Surgery of Parotid Gland, S. Clin. North America 29:673-677 (June) 1949.

Army Hospital to Be Reactivated

Surgeon General R. W. Bliss has authorized reactivation of the 127th General Hospital in Galveston. Sponsored by the University of Texas Medical Branch in World War II, this hospital served in the European theater under the direction of Col. Robert M. Moore, who now is professor of surgery and chairman of the Department of Surgery at the Medical Branch.

Actual mobilization of the unit is not expected until 1952, even if the military emergency becomes severe. However, Col. William Liston of the Fourth Army Headquarters, San Antonio, will be in Galveston during February and March to assist in reactivation plans.

Dr. William L. Marr, John Sealy Hospital, has agreed to serve as unit director for the reactivation. It is anticipated that Medical Branch medical and nurse alumni will want to join the hospital unit in addition to Medical Branch staff members. Interested alumni should write Dr. Marr for further information.

PRINCIPLES FOR MASS CHEST SURVEYS

Principles to use in solving the problems involved in routine chest roentgen-ray examinations in hospitals and mass surveys are being studied by a joint committee representing the American College of Radiology and the American College of Chest Physicians, and a report on the findings of the committee were released recently.

Routine chest survey examinations, as described by the joint committee, are examinations of the chest conducted on microfilm apparatus for screening normal persons from patients with abnormal changes in the chest and should not be considered as diagnostic. The 14 by 17 inch films are diagnostic aids, but results derived from examinations using either type of film should be confirmed by other procedures.

Survey chest roentgenograms are approved as a screening device if conducted by agencies which utilize qualified professional technical staffs and which refer patients with positive test results to qualified physicians for follow-up. Interpretation of findings resulting from the examination should be left to a responsible physician.

The committee recommends that the radiologist or chest physician be compensated for time spent in examining patients, and the basic principle of payment is by arrangement between the physician and hospital or agency sponsoring the mass examination.

From the committee's study of examinations during which the patient is fully clothed, it was concluded that examination of clothed persons is as effective for screening as examinations conducted with patients unclothed.

SALIVARY ADENOLYMPHOMA

Study and Report of Five Cases

JOHN L. GOFORTH, M.D., Dallas, Texas, and CARROLL H. SMITH, JR., M.D., San Gabriel, California

THIS uncommon and peculiar neoplasm which sometimes is referred to as Warthin's tumor and which represents approximately 6 per cent of salivary gland tumors, was first discovered and reported among a group of congenital epithelial cysts and fistulas by Hildebrand[7] in 1895. It remained for Albrecht and Arzt[1] to separate the lesion as an entity in 1910 and to add 2 cases of their own. Subsequent European reports were added to the literature but the first American contribution was made in 1929 by Warthin,[22] who reported 2 cases. Carmichael and his associates[3] in an excellent descriptive paper, reviewed the subject in 1935 and summarized 34 reported cases, including 8 of their own. By 1942 Plaut[17] was able to collect and tabulate a total of 67 cases. Subsequent additions, including 3 of their own, were listed by Gaston and Tedeschi[4] in June, 1946, bringing the total of reported cases at that time to 94. Since then cases reported by Lloyd,[13] Willis,[24] Owen,[16] Sirtori,[18] Tillinger,[21] Kerr,[9] and McNeeley,[14] together with the 5 cases in this report, bring the total to 126 at the time of writing.

CLINICAL DATA

Adenolymphoma is a slowly growing lesion having a preoperative duration ranging from a few weeks to more than thirty years in the reported cases. The size of the tumor varies from 1 to 6 cm. in diameter and is not related to the duration of growth, some having remained dormant for many years.[3] The usual location is in the region of the parotid gland or at the angle of the jaw. The submaxillary gland may be involved and bilateral cases have been reported.[17]

The lesion is usually painless but when partly cystic may become tensely distended and tender to palpation. Because of its subcutaneous location on or in the parotid gland, the tumor is free of the overlying skin, is slightly movable, and shows little tendency to surface ulceration. Cosmetic disfigurement is the usual presenting complaint. Not infrequently variation in size of the tumor mass is characteristic.

The age incidence has varied from 2.5 years to 92 years, the average being 54. The preponderance is in males in a ratio of approximately 5 to 1.[3, 17]

The prognosis with rare exceptions is good. The tumor is well encapsulated and usually shells out readily. Recurrence is unusual and malignant change is rare. Stöhr and Risak,[20] Ssobolew,[19] Lederman,[12] and Lloyd[13] each reported a malignant case. Tuberculosis within an adenolymphoma without evidence of tuberculosis elsewhere was also reported by Owen.[16]

PATHOLOGY

A useful classification of this relatively rare type of neoplasm offered by Gaston and Tedeschi[4] is included in table 1.

TABLE 1.—*Classification of Salivary Adenolymphoma According to Gaston and Tedeschi.*

Benign	Malignant
Papillary cystadenoma lymphomatosum.	Adenocarcinoma lymphomatosum.[6]
Cystadenoma lymphomatosum.	Squamous carcinoma lymphomatosum.[12]
Adenoma lymphomatosum.	

It is noteworthy that only 4 instances of malignant change in true adenolymphomas have been reported. One case of malignant parotid neoplasm composed of adenoid and lymphoid elements was also reported[4] but probably represented a separate entity. Of the malignant cases 3 were of a carcinomatous variety,[12, 19, 20] whereas the fourth, reported by Lloyd,[13] is of interest in that the malignant change involved the stroma of the tumor in the form of a syncytial reticulosarcoma.

Grossly, adenolymphomas are round or oval, somewhat flattened tumor growths, varying from 1 to 6 cm. in greatest diameter. The external surface is

FIG. 1. Low power (x 50) view showing relationship of lymphoid tissue to tall columnar epithelium-lined spaces.

From the Department of Pathology, St. Paul's Hospital, Dallas.
Read before the Section on Clinical Pathology, State Medical Association of Texas, Annual Session, Fort Worth, May 2, 1950.

coarsely or finely lobulated. A strong, definitive, fibrous capsule which readily permits enucleation by blunt dissection is universally present, although some parotid tissue may adhere to the capsular surface. The consistency varies from firmness in the solid variety to the softness or fluctuancy of the cystic growths. More often both cystic and solid areas are present.

On section the color of the fresh unfixed tumor varies from a grayish-pink to light orange or brown. The cut surface may appear lobulated because of large glandular spaces or clefts. If the growth is cystic, the fluid contents escape when it is opened, leaving a shaggy, papillary wall. The fluid varies from clear and mucoid, milky and mucilaginous, to turbid with granular debris, the last type of fluid simulating the contents of so-called dermoid cysts. In formalin-fixed specimens the cystic varieties contain an opalescent whitish coagulum.

Microscopically, the tumor consists of a glandular columnar cell parenchyma supported by a lymphoid tissue stroma. The epithelium forms tubular alveoli, clefts, and cystic spaces, the spaces presenting intracystic papillary projections. The epithelium is composed of a superficial layer of low to tall, columnar, acidophilic cells in a palisade pattern overlying a basal layer of less numerous, irregularly shaped, smaller cells interspersed at intervals. This arrangement presents a characteristic picture of columnar epithelium having a double row of nuclei, the basal layer of which is irregularly interrupted. The columnar cells resemble closely the lining cells of salivary tubules and do not possess true cilia; however, because of adherent masses of secretion, a pseudociliated "brush border" sometimes may be apparent. The epithelium may proliferate locally, show metaplastic change, and become stratified, forming nests or "pearls" with numerous small glandular lumens in these thickened areas. The papillary processes may be club-shaped and contain lymph follicles at their tips or may be slender and finger-like.

A thin basement membrane separates the epithelium from the stroma. The stroma consists of a delicate reticulum replaced in areas by collagenous connective tissue enclosing small lymphocytes, plasma cells, epithelioid cells, and eosinophils. Scattered lymphoid follicles, many of which possess pale and distinct germinal centers, are prominent. The alveoli and cleftlike cystic spaces described previously con-

FIG. 2. Low power (x 85) view of a more cellular and solid adenolymphoma area. Note the germinal centers of lymph follicles.

tain varying amounts of desquamated cellular debris, fat globules, cholesterol crystals, and thin albuminous or dense colloid-like material.

The histologic picture of adenolymphoma is directly dependent upon the gross anatomic arrangement of structure rather than the intimate cytologic detail, inasmuch as the tumor may be solid and adenomatous, predominately solid but split by cystic clefts, or predominately cystic with numerous intracystic papillary projections.

There have been reported[3] histologic variants in which squamous metaplasia of the columnar epithelium and/or irregularity in the normal palisading of the columnar cells have suggested a tendency toward malignant change. These are rare, however, and are not likely to be confusing.

HISTOGENESIS

Several theories designed to explain the source of salivary adenolymphoma have been advanced, but as yet no conclusive proof has been offered. Among the more popular concepts are:

1. *The "Orbital Inclusion" Theory.*—Kraissl and Stout,[10] in advancing this concept, observed in some species of Carnivora that the adult parotid gland develops from an embryonal sulcus in the oral cavity. They noted that earlier investigators had reported tubular structures lined by tall columnar epithelium in the region of the parotid glands but not connected with them. The tubules were considered capable of developing into cystic structures under certain conditions. With the growth of the embryo the parotid gland comes to lie in close proximity with this tubular structure complex which they named the "orbital inclusion." This "orbital inclusion," it was thought, might under certain conditions develop into a cystic growth. Little support is given to this concept as the "orbital inclusion" has not been demonstrated in man, its fate in human beings never having been determined.

2. *Oncocytic Origin.*—This theory was supported by Jaffe[8] and Hamperl,[5] who described cells within the salivary glands which differentiate from the secreting epithelium and the lining cells of the ducts into the so-called "pyknocytes" or, later, "oncocytes."

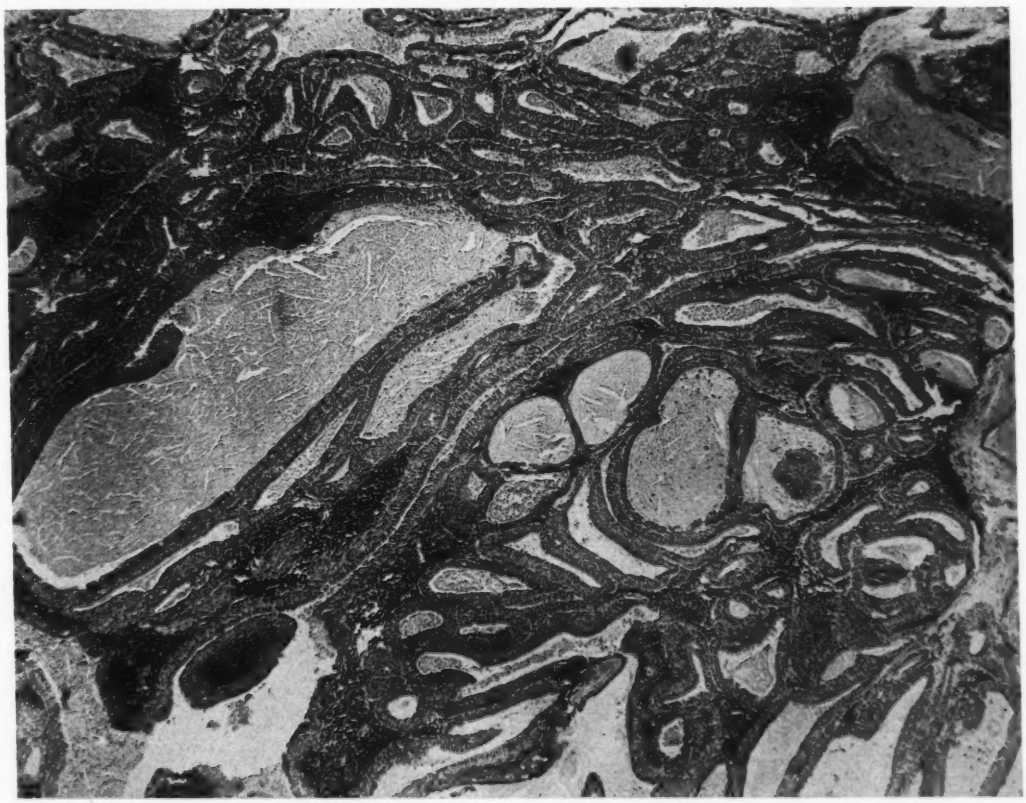

FIG. 3. Very low power (x 27) view of adenolymphoma showing general pattern of neoplasm. Note amorphous debris in cleftlike spaces.

These oncocytes were thought to be the cells of origin of salivary adenolymphoma. As mentioned by Harris,[6] the plausibility of this idea is considerably weakened by the fact that oncocytes are seldom if ever seen before the fourth decade of life, prior to which several cases of adenolymphoma have been reported. It is noteworthy also that oncocytes have been described as occurring in all three salivary glands as well as in the mucous glands of the tongue, the floor of the mouth, uvula, pharynx, esophagus, and trachea.[4] However, adenolymphoma has yet to be reported as occurring in these latter areas.

3. *Branchiogenic Origin.*—Among the supporters of this theory were Askanazy, Sternberg, and others.[2] Their views were based on the similarity of the embryonal type of epithelium and the lymphoid stroma seen in adenolymphoma to the type which lines branchial cysts. The source was believed to be the ectodermal portions of a branchial arch. This concept appears to be the least valid.

4. *Aberrant Anlage of Eustachian Tube.*—Warthin,[22] supported by Wendel,[23] concluded that adenolymphomas arise from heterotopic rests of ectodermal cells of the respiratory or eustachian tube anlages. This view was based on the embryologic character of the epithelium of the adenolymphoma, which resembles closely that found in the eustachian tube. Gaston and Tedeschi[4] upheld this viewpoint and showed photographically the great similarity between the epithelium of adenolymphoma and that of the respiratory tract. They pointed out that the lack of ciliation in the tumor epithelium does not preclude its possible origin from a pharyngeal pouch or from

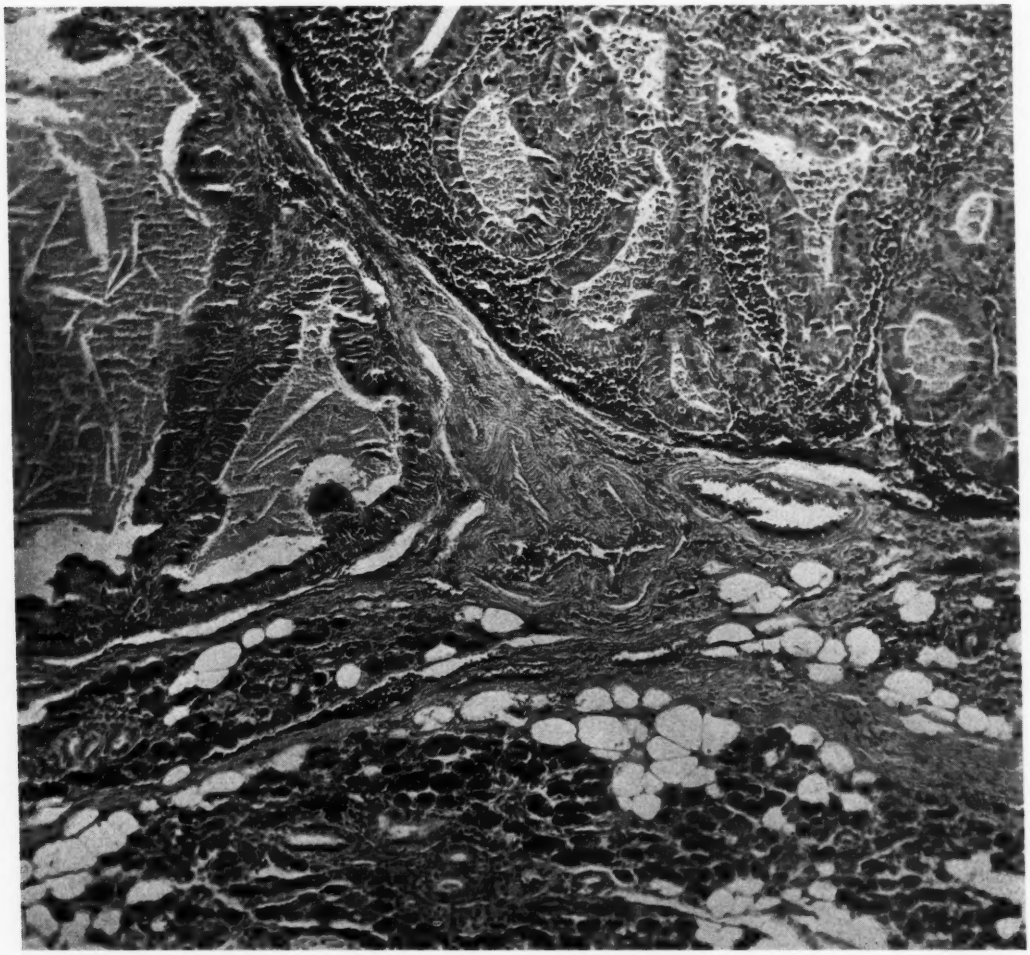

FIG. 4. Low power (x 65) view showing relationship of adenolymphoma to parotid gland tissue, separated by a thin fibrous tissue wall.

heterotopic eustachian epithelium, inasmuch as ciliation varies greatly in degree in areas of normal ciliated epithelium and further that ciliation is often dependent upon its functional necessity.

5. *Ectopic Salivary Rests in Lymph Nodes.*—Albrecht and Arzt[1] first advanced the hypothesis that salivary adenolymphomas arise from heterotopic rests of salivary gland tissue in the preparotid lymph nodes. These nodes have diffuse outlines and salivary tubules are scattered freely within their substance. As condensation and capsule formation later occur, scattered acini or whole lobules of salivary gland tissue may be incorporated within the nodes. A persistence of these inclusions into adult life is considered a sufficient focus of origin for this type of neoplasm. The majority of authors writing on salivary adenolymphoma, including Nicholson,[15] Carmichael and his colleagues,[3] Harris,[6] Plaut,[17] Willis,[24] and Lederer and Grayzel[11] support this histogenetic view.

CASE REPORTS

CASE 1 (Reported through the courtesy of Dr. W. S. Wysong, McKinney).—R. N. W., a white man, aged 70, first noticed a small lump under the angle of his left jaw in January, 1947; it grew slightly for two or three months. In April, 1947, the mass was excised. The patient had no pain before or after the operation. At last examination he was well and without complaint and there had been no recurrence of the growth.

Gross Description.—The specimen consisted of a firm, nodular, fairly well encapsulated mass of tissue measuring 2 cm. in greatest diameter, which was removed from the

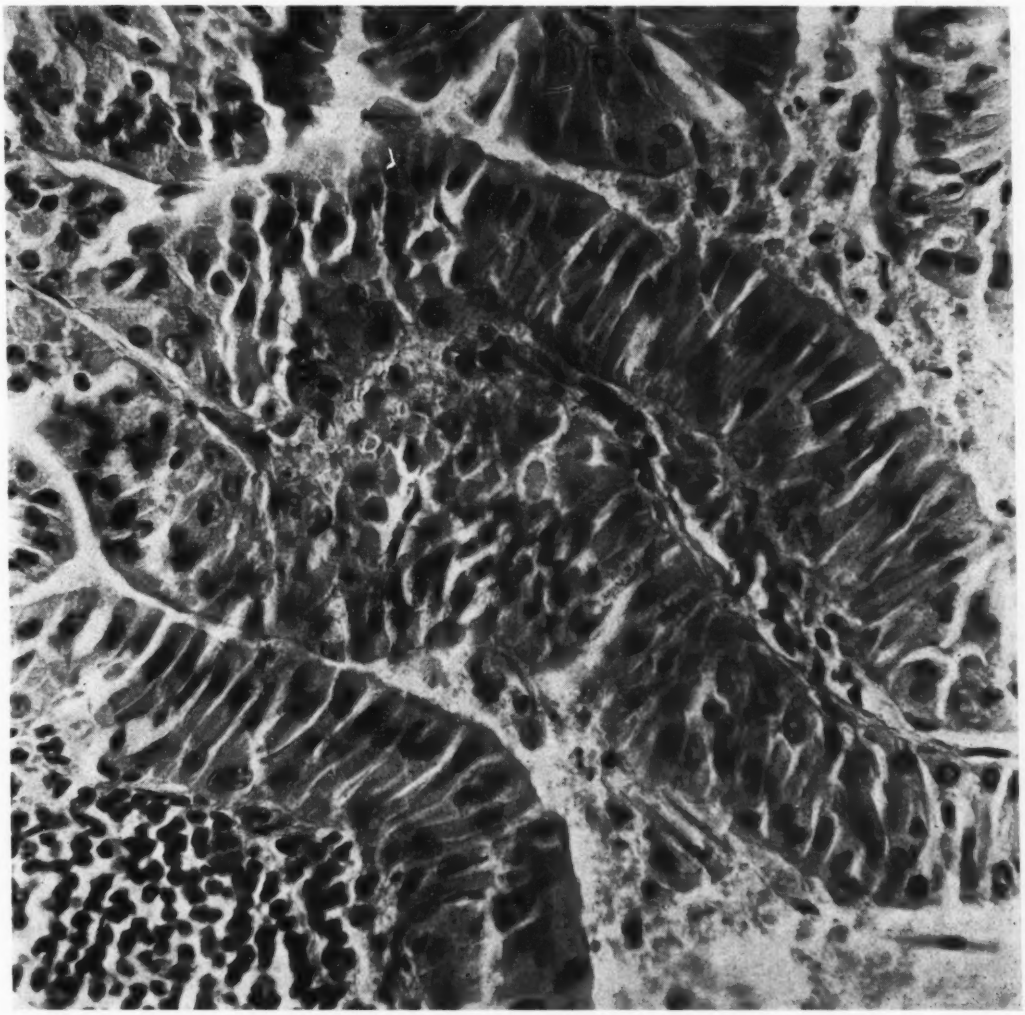

FIG. 5. High power (x 360) view showing detail of columnar epithelial cells. The double-layered structure, the pseudociliated "brush border," and the striking resemblance of the epithelial cells to salivary duct lining epithelium are clearly seen.

lower portion of the left parotid gland. On section brownish-gray tissue having the consistency and appearance of frozen gelatin was noted. There was no evidence of cyst formation.

Microscopic Description.—The microsections revealed a papillary neoplasm composed of numerous tall columnar epithelium-covered projections enclosing lymphoid tissue. The lymphoid tissue showed several prominent lymph follicles. Numerous cleftlike, glandular-appearing spaces filled with cellular and amorphous debris were apparent. In some areas a "brush border" on the surface of the columnar epithelium was evident; however, this was not true ciliation, being probably adherent tissue debris. The lymphoid stroma contained lymphocytes, plasma cells, epithelioid cells, and eosinophils. No evidence of malignant change was seen (fig. 1).

CASE 2 (Reported through the courtesy of Dr. Henry M. Carney, Texarkana).—R. S. J., a 60 year old white man in December, 1944, first noticed a small nodule 5 mm. in diameter over the parotid gland. This nodule slowly increased in size until it reached a maximum diameter of 4 cm. There were no subjective symptoms at any time. The tumor was removed surgically August 31, 1945, the wound healed well, and at last examination there was no evidence of recurrence.

Gross Description.—The specimen consisted of two firm, nodular pieces of grayish tissue which were removed from the parotid gland, each portion approximated 4 by 2.5 by 2 cm. The color varied from cream to light orange. On section the consistency was firm and uniform; there was no evidence of cyst formation.

Microscopic Description.—A neoplasm composed of glandular epithelium surrounding and enclosing a lymphoid stroma was seen in the microsections. Numerous epithelium-lined clefts and cystic spaces which were filled with amorphous material, cellular debris, and cholesterol crystals were apparent. The epithelium was composed of a superficial layer of columnar cells and a basal layer of irregularly

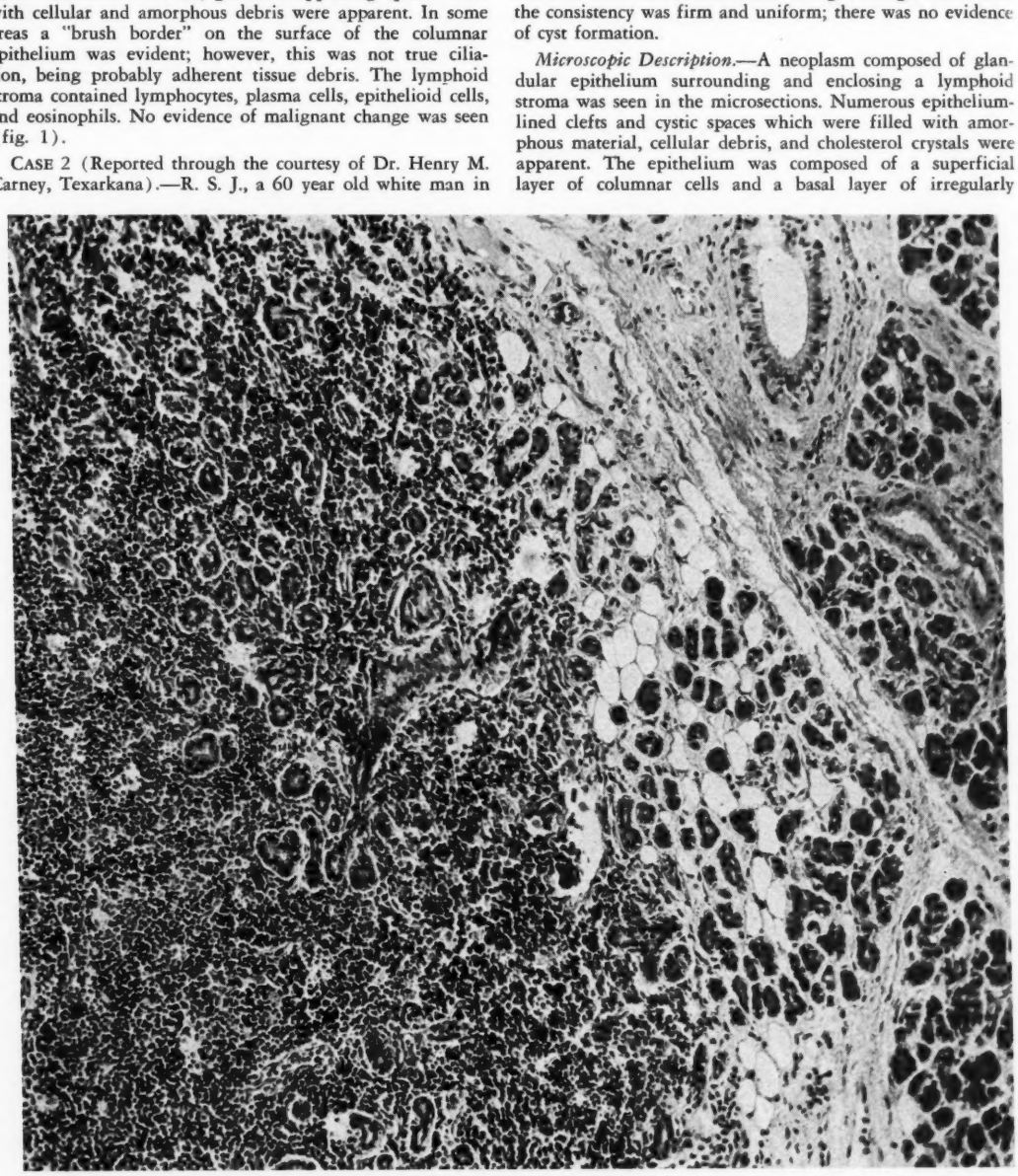

FIG. 6. Low power (x 100) view of preparotid lymph node showing poor demarcation between lymphoid and parotid gland tissue. Note the islands of salivary gland tissue and ductlike structures in the lymph node tissue.

shaped cells. The stroma consisted mainly of lymphocytes and some epithelioid cells in a fine reticulum. Several lymph follicles with germinal centers were apparent. The epithelial growth was regular throughout, with no evidence of malignant change (fig. 2).

CASE 3 (Reported through the courtesy of Dr. Arthur Gleckler, Sherman).—I. E. H., a 57 year old white man, first noticed a bean-sized, painless swelling in the left side of the neck, just below and slightly posterior to the angle of the jaw, some eight or nine months prior to examination. This lump grew slowly, attaining the dimensions of 3.5 by 1.5 cm. at the time of removal. Occasionally the patient would notice slight soreness in the region of the swelling but never severe enough to require treatment. There was no history of injury or infection. The patient had worn dentures for many years. At operation the tumor at the anterior border of the sternomastoid muscle was well encapsulated and freely movable. It resembled a large nodular lymph node and was easily removed by enucleation.

Gross Description.—The specimen was a nodular, well encapsulated tumor mass measuring 2.8 by 2.5 by 2 cm. The cut surface presented a firm, grayish-tan, homogeneous appearance with small, irregular, translucent patches.

Microscopic Description.—Histologically, the microsections revealed a neoplasm composed of lymphoid tissue and epithelial elements growing in a united lymphoid and adenomatous sort of pattern. Patches of lymphoid tissue containing active appearing germinal follicles were surrounded by layers of tall columnar epithelium which formed regular papillary projections occasionally. These tall epithelial cells resembled the lining cells of salivary ducts (fig. 3).

CASE 4 (Reported through the courtesy of the surgical staff of the Veterans Administration Hospital, Dallas).—L. R., a white man, aged 58, stated that for approximately four years a firm, easily palpable, slightly movable, nodular 2 cm. mass had been present just below the angle of the right mandible. The history disclosed syphilitic infection at the age of 19 years; tabes dorsalis was evident at examination. There was no history of injury or previous operation. At operation a well encapsulated neoplasm resembling a large lymph node and measuring approximately 3.5 by 3 by 2.5 cm. was exposed at the site mentioned previously. This tumor was freed and removed by blunt dissection. It extended medially to the level of the styloid process and carotid vessels. Postoperative recovery was uneventful, and there had been no sign of local recurrence when the patient was last examined.

Gross Description.—Two masses of tissue were received for pathologic study. One measured 3.5 by 3 by 2.5 cm. and consisted of an encapsulated, nodular, firm, grayish-brown tumor mass which grossly resembled lymph node tissue in areas. The other measured 2 by 1.5 by 1 cm.; was purplish-red; and consisted of loose fatty, connective, and muscular tissue.

Microscopic Description.—The microsections revealed a neoplasm somewhat like that described in case 3. However, more of the tall columnar epithelial cell component was apparent in case 4, the pattern often being that of a papillary adenomatous type of growth. The clefts contained amorphous material in which were degenerating cells and cholesterol crystals. The lymphoid and epithelial components showed no evidence of irregular behavior. This neoplasm was classified as "papillary cystadenoma lymphomatosum" (fig. 4 and 5).

CASE 5 (Reported through the courtesy of Drs. J. R. Maxfield, Jr., and Jack Maxfield, Dallas).—One month prior to examination, after a collision with a clothes-line, D. F. S., a white man, aged 60, first noticed a small lump just beneath the angle of the left jaw. This lump increased in size and remained soft. It tended to vary in size and had never been tender. At operation a brownish-gray, more-or-less lobulated, and partly cystic mass containing what appeared to be lymphoid tissue and measuring 4 by 3 by 3 cm. was noted. It was freed and removed from an area beneath the jaw ramus overlying the upper portion of the sternocleidomastoid muscle, anterior to the internal jugular vein, and superficial and anterior to the common carotid artery. Thin, mucinous, pinkish-gray, cloudy fluid escaped when the mass was handled.

Gross Description.—The tumor mass measured 40 by 30 by 20 mm., was well circumscribed, and grossly had the appearance of a large nodular lymph node throughout which were irregular cystic spaces and clefts. Some of these compartments measured as much as 3 mm. in diameter and contained thin brownish fluid.

Microscopic Description.—The microscopic picture was characteristic of adenolymphoma. The lymphoid tissue and epithelial cell components were both regular in appearance. The clefts were more numerous and some were larger than those we had seen in other cases.

COMMENT

Our study of salivary adenolymphoma convinces us that the "ectopic salivary rests in lymph nodes" concept advanced by Albrecht and Arzt[1] explains most satisfactorily the histogenesis and embryogenesis of this peculiar neoplasm. Although some writers have regarded adenolymphoma as a variety of teratoid growth, the constant presence in lymphoid tissue of tall columnar epithelium which bears a striking resemblance to epithelium lining salivary gland tubules or ducts constitutes the essential histologic feature of this neoplasm. As has been pointed out previously,[1] collateral support to this view derives from the study of preparotid lymph nodes.

Examination of an enlarging, slightly tender nodule 1 cm. in diameter removed from the left preauricular area of a 30 year old woman revealed a lymph node which was embedded in parotid gland tissue and which contained small islands of salivary gland tissue. Tubular structures lined by tall columnar epithelium were included in these islands (fig. 6). A similar histologic picture was noted in a microsection of an enlarged preparotid lymph node tumor removed from a 42 year old woman recently; preoperatively the growth was thought to be a so-called mixed tumor. In both of these instances the capsular structure between the lymph node and parotid gland tissue was diffuse and poorly defined. In each of these patients it would appear that the node enlargement was due, in part at least, to the growth of parotid epithelium in lymphoid tissue stroma.

We are of the impression that the many clefts in each adenolymphoma constitute potential cysts which on occasion may become distended with secretions, accounting for the variability in the size of the neoplasm sometimes noticed by the patient. All of our

patients were classified as having benign neoplasms and each was cured by conservative surgical removal. Secondary infection was not noted in any of them. It is noteworthy also that the tumor mass as viewed by the surgeon at the time of operation resembled an enlarged nodular lymph node which on gross section contained multicystic areas.

We believe that familiarity with this odd neoplasm and its probable mode of development will result in greater preoperative diagnostic accuracy.

SUMMARY

Five additional cases of adenolymphoma and a review of the literature are presented. This uncommon, usually benign neoplasm, representing approximately 6 per cent of salivary tumors, occurs primarily in the fifth and sixth decades of life with a predilection for men in a ratio of 5 to 1 and is curable by surgical enucleation.

The most widely accepted histogenetic theory is that these tumors arise in heterotopic salivary gland tissue included within lymph nodes. Our observations support this view.

It is hoped that this report will serve to familiarize the reader with a little known pathologic entity.

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ABSTRACT OF DISCUSSION

DR. PAUL BRINDLEY, Galveston: This worth-while paper calls attention to one of the less common but nevertheless important lesions occurring in or adjacent to the salivary glands.

If about 1 of every 16 or 6 per cent, of salivary gland tumors is of this variety, physicians certainly should be on the alert for such growths and should always consider them in the differential diagnosis of neoplasms in this area.

The unusually tall epithelial cells with the double rows of nuclei, so well described by the authors as lining cords, tubules, clefts, and cystic spaces in these tumors, strikingly resemble those cells which line small ducts of salivary glands. This feature, along with the lymphadenoid character of the tissue about these epithelial collections, in my opinion strongly supports the likelihood that adenolymphomas originate as ectopic rests in lymph nodes or in collections of lymphadenoid tissue.

The observation of what are unquestionably epithelial cells within lymph nodes or in collections of lymphadenoid tissue may at first suggest metastatic adenocarcinoma. It is important not to make such a mistaken diagnosis in salivary adenolymphomas. These growths have such a characteristic histopathology that once a typical example is seen, diagnosis is usually easy. It must be remembered that a nodule from a salivary gland or gland region which contains cords, clefts, or spaces lined by these unusually tall, clear, well differentiated epithelial cells with double rows of nuclei usually represents a nonmetastatic, benign condition.

DIAGNOSIS IMPORTANT IN HEADACHE THERAPY

Diagnosis is the most important factor in treating headaches, Dr. French K. Hansel said in a speech before allergists assembled for the seventh annual meeting of the American College of Allergists in Chicago in February.

The allergic type of headache is apparently caused by "edema" or swelling in the brain, similar to hives which appear on the skin. Allergic headaches are caused by food, and treatment is based chiefly upon planned diets which avoid the offending foods, he pointed out. Nonallergic headaches respond well to treatment with histamine and temporary relief can be obtained by the use of several new drugs.

Sixty to eighty million Americans, for one reason or another, annually consult a doctor, and it is known that the tuberculosis rate among them is much higher than among the general population. For this reason it is highly desirable that private physicians, including general practitioners, internists, and specialists, obtain a survey film of every patient who consults them unless the results of a recent chest x-ray survey are available.—Pub. Health Rep., A. C. Christie, M. D., June 2, 1950.

MALIGNANT MELANOMA OF THE TONGUE

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THE pigmented malignant tumors, known variously as melanoma, melanocarcinoma, and melanosarcoma, depending upon their histologic picture, are far more common than is generally realized. They represent approximately 2 per cent of all malignant tumors and 20 per cent of the primary cancers of the skin.[7] Melanoma represents the majority of ocular malignant tumors and an occasional case has been recorded as originating in the oral and nasal cavities.[4] Cases of vulvar melanoma[6] and rarely a primary melanoma of the adrenal gland have been reported.[5] Melanoma of the intestinal tract frequently has been reported, chiefly in the rectum, where it represents from 2 to 3 per cent of all melanomas. The first case of melanoma of the tongue was reported in 1859 by Weber.[13] Baxter[2] in 1941 reviewed the literature of melanoma of the oral cavity and found 54 cases, of which 36 were on the hard and soft palate, 15 on the alveolar process of the maxilla, and 1 each on the tongue (Weber's case), mandible, and the lower lip and cheek. Thirty-five cases were in males and 14 in females; in 5 cases the sex was not stated. The average age of the patients was 46 years with extremes of 2 months and 84 years. Six of the 54 cases were in persons not Caucasian (4 in Orientals and 2 in Negroes). Ninety-three per cent of these occurred on the palate or superior alveolar process, indicating a definite predilection of the tumor for the maxilla.

Many older writers recognized the pigmented tumors and wrote concerning their clinical peculiarities, but Virchow, following the birth of cellular pathology in the mid-nineteenth century, first attempted a logical classification of these neoplasms. He divided them into carcinomatous and sarcomatous types depending upon their cellular picture and first employed the term "melanoma" for the entire group. In 1880, Demieville[3] proposed a theory of origin from perithelium and endothelium of blood vessels for the nevus cell and von Recklinghausen[12] in 1882 accepted by exclusion this origin, but Unna[11] in 1893 first crystallized one of the modern views of the origin of the nevus cell. He believed that all of the pigmented and nonpigmented nevi were directly connected with the cutaneous epithelium or its appendages, and he used the cytologic appearance of the nevus cell with its clear oval vesicular nucleus and its immediate contact with adjacent cells and the epithelium as proof of its origin therefrom. He thought that this metaplastic process which produced the nevus cell from cutaneous epithelium showed a constant tendency toward isolation of groups of nevus cells from the overlying epithelium.

Many objections to this mode of origin soon arose, and in 1899 Soldan brought forth the viewpoint of origin from nerve fibrils of the dermis and epidermis.[10] The chief foundations upon which this idea rests are the existence of large multipolar polygonal shaped and heavily pigmented cells similar to the specialized mesodermal melanoblast in melanomas and the many observations of the relationship between the nervous system and pigment formation dating back to von Recklinghausen's work in 1882. Masson's logical papers have done much in modern times to establish the neural origin of the nevus cell.[8, 9] Recently Allen[1] has reviewed the entire subject of melanomas with the conclusion that these tumors are of epidermal origin, and he supports the original view of Unna.

Search of the literature reveals only 1 previous report of melanoma of the tongue.[13] Herewith is added another case, reported through the courtesy of the Samuell Clinic and Dr. W. E. Haley.

CASE REPORT

History.—The patient, a 90 year old white woman who had used snuff for many years, was well until 1943, when she fell and became a semi-invalid. Two years after the fall she noted a small blister-like lesion on the lateral aspect of the tongue. This grew to form a polypoid mass 2.5 cm. in diameter and was removed at St. Paul's Hospital in June, 1945. A recurrent polypoid growth was noted at the same site in November, 1948, and in February, 1949, the lesion again was excised. The area healed only a few weeks prior to death, which occurred in May, 1949, and a small lump which was gradually enlarging was noted beneath the angle of the right jaw. Permission to make a partial postmortem examination, limited to the tongue, the mass below the right jaw, and the body surfaces, was granted.

Pathologic Study.—Gross examination of the lesion removed in June, 1945, revealed a wedge shaped piece of tissue covered with mucosa and measuring 1.5 cm. in the greatest diameter, which included a polypoid growth. This growth extended from the mucosal surface, measured 12 by 10 mm., and was ulcerated.

Microscopic examination of the growth proved it to be a granulomatous polyp. A thin layer of fibrin and exudate covered the outer surface. Loose, very vascular fibroblastic infiltrated tissue with inflammatory cells formed the main part of the growth. The inflammatory cells were mainly mononuclears but many polymorphonuclears were present. The squamous epithelium at each side of the growth showed only inflammatory changes. None of the sections revealed any evidences of malignant disease.

The diagnosis was chronically inflamed tissue from the tongue with granuloma formation.

Gross examination of the lesion removed in February, 1949, showed a specimen consisting of an irregular piece

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of mucosa-covered tongue tissue measuring 25 by 20 by 18 mm. Two polypoid structures attached by narrow pedicles, one measuring 12 mm. and the other 6 mm. in diameter, extended from the mucosal surface. Section revealed each of these structures to be composed of rather soft, partly necrotic, hemorrhagic, grayish-black tissue which was radially striated. The submucosal tissues and the musculature of the tongue were rather soft and reddish-yellow but otherwise did not show any gross pathologic change.

Microscopic examination of the sections revealed a malignant neoplasm of the "melanocarcinoma" type. The majority of the cells contained a dark brownish granular pigment which was identified as melanin. Approximately 30 per cent of the cells showed "prickles." There appeared to be a direct transition from overlying squamous epithelium into tumor, and in portions of the sections the basal layer of the epithelium was becoming melanomatous. There was little pattern or orderliness to the growth, which extended into surrounding tissues and occupied a considerable area beneath the overlying squamous epithelium. This epithelium had an overgrown appearance and presented a single area of ulceration. The lesion presented as two polypoid structures extending above the surface of the tongue. Each of these was covered by squamous epithelium. Some of the tumor cells had invaded the tongue musculature. The lesion was appraised as being fairly rapidly growing. Mononuclear cells were scattered throughout the tissue immediately bordering the tumor. A few polymorphonuclears were noted in the area of ulceration overlying its surface.

The diagnosis was malignant melanoma, grade 3 to 4 malignancy, radiation resistant, infected, and ulcerated.

At necropsy three and one-half months after the last operation gross examination of the body externally revealed no evidences of jaundice or cutaneous metastases. A slightly enlarged node was palpated deep in the tissues at the angle of the right jaw. This node was removed. On section, it had a firm, rubbery, mottled brown cut surface.

Microscopic examination of sections through the lymph node removed from the neck revealed that much of the lymphoid tissue was replaced by malignant melanomatous tissue. The melanoma cells were large oval to polygonal cells with prominent nuclei and nucleoli. Many of them contained dark brown granular melanin pigment. Many of the cells were in mitoses. An occasional cell showed "prickles."

Diagnosis was cervical lymph node, right side—metastatic malignant melanoma.

DISCUSSION

The origin of melanoma remains today as much a mystery as it was with Virchow ninety years ago. Many melanomas present a picture in which there is an apparent transition directly from nevus cells into melanomatous tumor tissue, whereas in other cases there are only melanoma cells without nevus cells beneath an intact overlying epithelium. In rare instances, as in the present case, a direct transition from overlying squamous epithelium into melanomatous tumor tissue is seen. In this case some of the tumor cells showed "prickles." The brilliantly lucid and convincing papers of Masson have gone far in establishing the nevus cell as a derivative from the neurocutaneous apparatus and in fixing the melanomas as neoplasms ultimately derived from nervous tissue. This explanation seems adequate for those melanomas in which the transition from nevus cells can be demonstrated and may even be assumed for those in which melanomatous tissue lies in the subjacent tissues entirely disconnected from the overlying intact epithelium, but it falls short of explaining those histologic pictures in which the transition from squamous epithelium is clearly demonstrable and in which the tumor cells present some of the characteristics of squamous epithelial cells.

The case reported here is interesting from two aspects: (1) it shows the relatively rare histologic

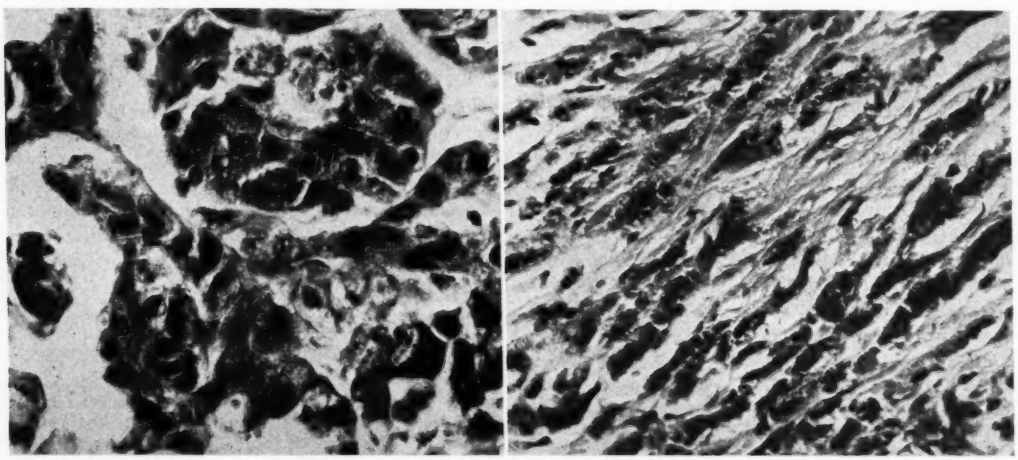

FIG. 1. Left. High power view of a tongue neoplasm showing the detail of melanoma cells. Note the granules of melanin pigment in the cytoplasm of the cells. x 312.

Right. High power view of submandibular lymph node metastasis showing malignant pigment containing melanoma cells. Note the change in cell morphology, a behavior characteristic of malignant melanoma. x 210.

picture in which direct transition from the basal layer of squamous epithelium into melanomatous tumor can be seen, and (2) the relationship between these two lesions developing at an interval of three and one-half years on a single site on the tongue is obscure, for repeated review of the original slides revealed no evidence of melanoma cells.

I do not believe that this case proves or disproves either of the modes of origin of melanomas, but I am of the opinion that the melanoma cell may be a multipotential cell derived from the basal layer of stratified squamous epithelium. Such a viewpoint may be entertained only if two assumptions are made: (1) that the basal layer of the stratified squamous epithelium is intimately connected with the neurocutaneous apparatus and on occasion is capable of differentiating totally or completely into a nevus-like cell from which the melanomas may develop, and (2) that cell nests from the basal layer are sometimes left behind embryologically and form the basis for the development of melanomas isolated in the corium by the process above described.

SUMMARY

A case of primary malignant melanoma of the tongue is recorded.

Primary melanoma of the oral cavity is a relatively rare lesion, 54 cases having been reported through 1941. Melanoma of the mouth shows a predilection for the maxilla, 93 per cent of reported cases, but does occur elsewhere infrequently. Melanoma of the tongue though rare behaves in a conventional manner.

The literature of melanoma is reviewed and the opposing views of origin of the nevus cell are discussed.

Grateful acknowledgment is made to Dr. J. L. Goforth for many helpful suggestions and criticisms in the writing of this paper.

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ABSTRACT OF DISCUSSION

DR. FRANK M. TOWNSEND, Galveston: As indicated by Dr. Blackburn, this case raises two items for discussion: (1) the rarity of primary melanomas of the tongue and (2) the mode of origin of melanomas.

Certainly, from the evidence presented, this case represents a primary melanoma of the tongue. It is indeed regrettable that a complete necropsy was not obtained. Without such a complete examination, the question as to whether this tumor could possibly have had its origin elsewhere has to remain unanswered.

After studying the slides prepared from the tongue lesion, I was impressed by the intraepithelial changes in one area. This resembled the change observed in so-called intraepithelial nevi or junction nevi. The cells present in this lesion were malignant, and this particular intraepithelial change is good histologic evidence in favor of the tongue being the primary site.

This observation leads to a consideration of the other point employed in Dr. Blackburn's presentation, namely, the origin of melanomas. The conflicting views of origin of these tumors is best resolved by Willis in his book entitled "Pathology of Tumours."* He states "much of the confusion regarding histogenesis of such tumours has arisen from supposing them all to be of similar origin—all mesodermal, all epithelial, or all neuroectodermal." Since melanomas have been known to arise from such varied melanin-producing cells as those of the skin, the retina, and the leptomeninges, it is with some difficulty that all these can be traced to a common cell or tissue of origin. Until we better understand the physiologic and pathologic chemistry of melanin and melanin-producing tissues, the morphologist must accept that these tumors can and do arise from different tissues in different situations. This concept will fit itself better to the needs of the present day morphologist and not force reliance on some specific tissue of origin.

**Willis, R. A.: Pathology of Tumours, St. Louis, C. V. Mosby Company, 1949, pp. 899-917.*

Rheumatic Fever Recovery Good

Recovery from rheumatic fever is good in a great many cases and indications are that many survivors are leading normal lives. A study by the Metropolitan Life Insurance Company which traced survivors among 3,000 patients of ages 1 to 20 years shows 7 out of 8 to be living at least ten years later. The study also reveals that a large number of the older boys were in military service during World War II and a large number of the girls have become mothers.

Blood-Processing Plant in Fort Worth

A new blood-processing plant which will cost approximately $850,000 is under construction in Fort Worth. The plant, in which the Armour Laboratories will produce dried human blood plasma for the Army under an Army contract, is the only such plant in the Southwest. The American Red Cross will set up collecting machinery for the Army to secure the blood from voluntary donors of the civilian population of the Southwest.

CYSTIC TUMORS OF THE ADRENAL GLAND ASSOCIATED WITH CUSHING'S SYNDROME

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THE adrenal gland consists of two parts, the cortex and the medulla. These parts differ in origin, physiologic function, and type of associated neoplasia. This paper is primarily concerned with the adrenal cortex. The cortex takes its origin from the mesoderm, celomic epithelium which later gives rise to the urogenital fold and the wolffian body from which, in turn, arise the ovary and testis. Although the cortex is of mesoblastic origin, its cells are epithelial in type; hence, cortical tumors are adenomas and carcinomas.

CLASSIFICATION

Cortical tumors occur with much greater frequency than those arising from the medullary portion of the gland. Ewing[5] has classified cortical tumors as (1) hyperplasias, nodular or diffuse, (2) adenomas, and (3) carcinomas.

A diffuse hyperplasia of the cortex sometimes occurs. As a result, the adrenal gland may become as large as the kidney. Hyperplasia is usually composed of well defined cortical cells. It has been suggested that nodular hyperplasia represents regeneration after infection in the adrenal gland.

Adenoma of the cortex is similar to the nodular form of hyperplasia but the arrangement of the cells is more atypical and neoplastic. The cells of adenomas are occasionally filled with yellow pigment, thus producing a sharp contrast between the adenoma and the surrounding cortical tissue. The adenomas vary in size, are frequently bilateral, and may be encapsulated.

Carcinoma of the cortex is an uncommon tumor resembling hypernephroma of the kidney in gross appearance. These tumors are usually soft, yellowish growths with frequent hemorrhagic areas and occasional areas of necrosis. Rarely, cystic degeneration may follow the necrosis. Cortical carcinomas are usually anaplastic and invasion of the capsule with extension into the surrounding tissues occurs early.

The symptoms produced by tumors of the adrenal cortex are in no way constant and vary according to the sex of the patient, age at the onset of the illness, the degree of endocrine activity of the tumor, and the duration of the disease.

Cahill[2] suggested another classification of adrenocortical tumors: (1) tumors with endocrine symptoms, (2) tumors with only an abdominal mass, (3) tumors of metastatic masses, and (4) tumors with associated arterial hypertension, either paroxysmal or continuous.

Kenyon[6] listed six types of clinical syndromes caused by hyperfunction of the adrenal cortex: (1) the adrenogenital syndrome, (2) Cushing's syndrome, (3) mixed clinical pictures, including features of the first two, (4) a syndrome characterized by single or isolated endocrine manifestations, (5) feminizing syndromes, and (6) syndromes without endocrine manifestations.

SYMPTOMATOLOGY

Since this paper is primarily concerned with adrenal tumors producing Cushing's syndrome, discussion will be restricted to that form of hyperadrenocorticism.

In 1932 Cushing[3] described a bizarre polyglandular disorder. In his words, "The disorder is characterized by a rapidly acquired plethoric adiposity affecting the face, neck, and trunk, the extremities being spared. It is associated in women with hypertrichosis and amenorrhea. Other characteristic features are vascular hypertension, purplish striae distensae of the abdomen, and acrocyanosis with cutis marmorata of the extremities. It is often accompanied by hyperglycemia, occasionally by polycythemia, and a peculiar softening of the bones of the skeleton has been found at autopsy. In its extreme forms, the malady has more often been encountered in young adults, and the average duration of life in the fatal cases has been something over five years."[4]

In addition the male may show enlargement of the breasts and develop a feminine contour of the habitus, disappearance of the beard, and diminution in the size and reproductive function of the penis and testes. In the female the breast may decrease in size and the clitoris hypertrophy. Other features somewhat common to both sexes are: a moonlike facies, acne, nephritis, various stages of baldness, headaches, weakness, palpitation of the heart, and dyspnea. Apparently this disease occurs more frequently in women and probably is practically unrecognized in men unless there is an associated feminization.

At the time of his first paper Doctor Cushing believed that the syndrome could be explained entirely on the basis of pituitary basophilism. However, in the light of subsequent events, he recognized that many

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of the symptoms of the syndrome are the result of hyperadrenocorticism. He even pointed out that in one of his cases at autopsy both a basophilic pituitary adenoma and an adrenocortical adenoma were seen.

It should not be concluded from this discussion that adrenocortical tumors and basophilic pituitary adenomas are the only lesions which may result in reversion of sexual characteristics. Reversion may be associated with (1) tumors of the thymus and secondary hyperplasia of the adrenal cortex, (2) parathyroid tumors, (3) arrhenoblastoma of the ovary, and (4) rarely, granulosa-cell tumor of the ovary. The clinical picture produced by these lesions may simulate Cushing's syndrome but hypertension, abdominal striae, moonlike facies, and diabetes are usually absent. The estimation in the urinary content of the 17-ketosteroids and of the corticosteroids (reducing steroids) may be helpful in establishing the diagnosis of hyperadrenocorticism. Even the differentiation between hyperplasia and tumor of the adrenal cortex is being simplified by this method.

TREATMENT

Before 1927 the operative mortality of adrenalectomy for hyperfunctioning adrenal tumors was approximately 50 per cent. In that year Stewart and Rogoff[8] reported that they had prolonged the life expectancy of adrenalectomized dogs with a crude extract of the adrenal cortex; the name given this hormone was "cortin." In 1936 Mason, Meyers, and Kendall[7] isolated corticosterone and dehydrocorticosterone in crystalline form from extracts of the adrenal cortex and noted that these products could maintain adrenalectomized animals in good condition. Since their isolation and the advancement of knowledge concerning the physiology of the adrenal cortex, the operative mortality has been noticeably reduced. Walters[9] recently reported a series of 9 patients operated upon for adrenocortical tumors with 8 successful results; the 1 fatality occurred in 1924 before adequate means to control adrenal insufficiency were available. Control of postoperative adrenal insufficiency probably has been the most important factor in the reduction of mortality and morbidity after removal of either an adrenal tumor or a hyperfunctioning gland.

Preparation of the patient for surgery should include the administration of adequate amounts of fluid to which has been added the sodium ion in the form of sodium chloride and sodium citrate, adequate doses of vitamin C, and a low potassium diet. Some surgeons advocate adrenocortical extract preoperatively. These measures should be continued during the postoperative period with the careful administration of adrenocortical extract in sufficient doses to prevent symptoms of cortical insufficiency. When the patient's condition warrants, the hormone may be decreased and finally discontinued. He should then be closely observed for any suggestions of cortical insufficiency.

SURGICAL APPROACHES

Three different surgical approaches have been advocated for the exposure of the adrenal glands: (1) the lumbar or extraperitoneal incision, (2) the abdominal or transperitoneal incision, and (3) the transthoracic approach. The lumbar and abdominal approaches are favored by the majority of surgeons.

Lumbar Approach.—The posterolateral lumbar approach is similar to that used in exposing the kidney. After the fascia of Gerota has been incised, the kidney may be exposed and retracted downward usually with good exposure of the adrenal gland. This approach has the advantage of an extraperitoneal exposure and simplicity. There is the disadvantage that both adrenal glands cannot be exposed for comparison at a single operation, which is important, as it may be impossible preoperatively to determine which gland contains the tumor. In patients whose symptoms are due to hyperplasia of the adrenal gland, the surgeon must expose each gland to observe the size of each gland and to exclude a possible tumor.

Young[11] has described an excellent method for simultaneous exposure and study of both adrenal glands. His method is similar to a bilateral posterolumbar incision. The patient is placed in the dorsal prone position with the kidney rest slightly elevated. An incision is made from approximately 2 inches lateral to the eleventh spinous process extending inferiorly and laterally, as in the usual kidney incision. The twelfth costovertebral attachment is disarticulated and the twelfth rib retracted superiorly. Gerota's fascia is incised and the kidney exposed. By retracting the kidney inferiorly, good exposure of the adrenal gland can be obtained. A pack is placed in the wound and the other adrenal gland exposed similarly. Simultaneous bilateral exposure permits careful evaluation prior to decision as to which adrenal gland or how much of each to remove.

Abdominal Approach.—Bothe[1] of Philadelphia and Cahill[2] and his associates at Presbyterian Hospital in New York are among those who favor the abdominal approach. This incision permits examination of both adrenal glands and the ovaries at a single operation. However, it does require a rather large incision, an intraperitoneal approach, and frequently does not permit as good exposure of the adrenal glands as the Young incision.

Transthoracic Approach.—The transthoracic route has been used by a few surgeons. It is claimed that this route is an easy approach in view of the fact that the adrenal vascular pedicle allows a slight upward range of motion; the disadvantages overshadow the

advantages. Since bilateral exposure of the adrenal glands is impossible with the transthoracic approach, usually a preliminary exploratory celiotomy must be done. Furthermore, it is seldom necessary to use the approach for good exposure of an adrenal tumor. When such exposure is necessary a thoraco-abdominal incision probably would be preferable.

CASE REPORTS

In connection with this subject, 2 patients with Cushing's syndrome who have been observed at Scott and White Clinic and operated upon by one of us (G. V. B., Jr.) in the past year are herewith reported. Both were observed to have a unilateral cyst of the adrenal gland. No report of a cystic tumor of the adrenal gland associated with Cushing's syndrome has been discovered in the literature.

CASE 1.—Miss J. L., a 56 year old, white, unmarried woman, reported November 8, 1948, with a chief complaint of swelling of the legs and feet. She had previously been in good health and had had an uncomplicated menopause three years before. About nine months prior to admission, she had begun to develop facial hirsutism followed by a peculiar bronzing of the exposed skin, a queer dryness of the mouth unrelieved by large quantities of water, and recently swelling of the feet and ankles. About six weeks prior to admission a moderate nocturia was noticed.

Physical examination revealed a moderately obese, white woman with a moonlike facies and heavy deposits of fatty tissues in the supraclavicular regions. The hair on the scalp was thin and a rather heavy growth of fine hair on the face was noted. There was bronzing of the skin of the face, neck, and arms and many petechiae and ecchymoses over the body were visible. Marked pitting edema in the feet and legs to the level of the knees was present. The blood pressure was 154/80 with the pulse rate 85 per minute.

Positive laboratory findings were as follows: glycosuria, albuminuria, blood cholesterol 205 mg. per 100 cc., grade 2 dye retention in the liver, and blood sugar varying from 180 to 200 mg. per 100 cc. with a diabetic type of glucose tolerance curve. Roentgenograms of the skull and chest and intravenous pyelograms were negative.

Bilateral exploration of the adrenal glands was performed November 19. The Young approach was used, and excellent exposure of each gland obtained. The right was normal in appearance but the left was 6 by 4 cm. and cystic. The left gland was easily removed and the pathologist reported that it contained a benign cyst.

The postoperative course was dramatic. In spite of a daily intake of 3,000 cc. of intravenous fluids, the patient lost twenty-two pounds of edematous fluid in the first four postoperative days. Within a week a noticeable improvement in the skin texture occurred. The adrenocortical extract was discontinued after five days. The diabetic state was essentially cleared and the patient was dismissed December 4 in an improved condition.

The patient returned for observation February 3, 1949, with the history of having gotten along well since leaving the hospital. Her weight was 163 pounds as compared to the admission weight of 184 and the blood pressure was 148/98. The skin had returned to normal except for residual hirsutism. The diabetic status was about as before dismissal.

Further observation in May, 1949, revealed clinical evidence of progression of the cirrhosis, which improved with medical management. However, marked osteoporosis was present when the patient was seen again in June. Further observation will be necessary before a final evaluation of this patient can be made.

CASE 2.—Mrs. L. A. W., a 34 year old white woman, reported in March, 1940, with the chief complaint of hypertension of five years' duration, scotomas, smothering spells, and exertional dyspnea. Her menses began at the age of 14 years and had always been irregular and scanty. She had had only three or four menstrual periods in the thirteen years prior to admission, the last having been six years previously. The patient had been married thirteen years with no pregnancies.

Physical examination revealed an obese woman weighing 205 pounds. Blood pressure was 192/116 and pulse rate 90 per minute. There was slight exophthalmus; otherwise, except for the obesity the examination was essentially negative. The extrocardiogram revealed impaired conduction and the basal metabolism rate was minus six. A diagnosis of pituitary basophilism was made and roentgen therapy to the pituitary gland advised. Three courses of roentgen therapy were given elsewhere.

Course of Disease.—When the patient was again seen in early 1941 almost a year after her first visit, she seemed improved clinically with a blood pressure of 170/120. She returned again in late 1941, at which time she had lost about 40 pounds and the blood pressure was 186/112. Her next visit was March, 1944, at which time her symptoms were worse; the weight was 195 pounds, the blood pressure 208/126, and her headaches had returned. She was advised to have roentgen treatments to the pituitary gland and again had the treatments elsewhere. At the time of observation in 1944, the ophthalmologist reported arteriosclerosis of the retinal vessels.

When the patient returned in April, 1945, she gave the history of a few recent menstrual periods, apparently secondary to Theelin injections. For the first time examination revealed abdominal striae and hirsutism. The patient was next seen March 7, 1949, with the history that the menses were unchanged and that she had become nervous. Examination revealed an increase in the hirsutism, thinning of the hair on the scalp, marked striae of the abdomen, and thickening of the skin of the face. The breasts were atrophic and pelvic examination was negative. The blood pressure was 244/148, and ophthalmoscopic examination revealed hypertensive vascular disease of retinal vessels (Keith-Wagener's, grade 3). The electrocardiogram showed hypertrophy of the left ventricle and the remainder of the laboratory findings was essentially normal except for a blood urea of 66 mg. per 100 cc.

Bilateral exploration of the adrenal glands was done March 14, 1949, again in the method described by Young, and a tumor of the right gland was removed. The pathologist reported this to be a benign cystic tumor. Large doses of adrenocortical extract were necessary after surgery to prevent a shock which simulated an Addisonian crisis. The patient's condition steadily improved, and she was dismissed April 8, 1949. The hirsutism on the face had become much less, and there was marked thinning of the skin with generalized loss of edema. Her general appearance was better, and the blood pressure was 140/70. She has returned several times for observation and continues to improve.

SUMMARY

Cushing's syndrome is discussed and its relation to functioning tumors of the adrenal is reviewed.

The relative merits of different incisions used in

the removal of adrenal tumors are presented. The Young incision in selected cases is recommended.

The importance of preoperative preparation and postoperative care in obtaining a low mortality and improved morbidity rate is stressed, adequate adrenocortical extract after surgery being one of the most important factors.

Two cystic tumors of the adrenal gland with Cushing's syndrome are presented. The tumors were removed with definite improvement in the patients' symptoms.

No previous report of a cystic tumor of the adrenal glands associated with Cushing's syndrome has been found in the literature.

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MALIGNANCIES OF THE UTERUS

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OF malignant diseases in women, carcinoma of the uterus in frequency is second only to carcinoma of the breast. Vital statistics for 1942 to 1944 show that it was responsible for 19.3 per cent of female deaths from cancer. In 1944, the last year in which complete figures were available, 17,152 women died of uterine cancer. Hence, it is important to review frequently current knowledge of the diagnosis, treatment, and prevention of the disease.

DIAGNOSIS

Since early diagnosis is the keystone to improved rate of cure, it is a good starting point for discussion.

Before a diagnosis can be made, the patient must report for examination. Howson and Montgomery in an instructive study on the cause of delay in diagnosis of pelvic cancer noted a delay of a month or longer in more than 72 per cent of cases; the patients were responsible for the delay in 44 per cent of the cases. Thanks to constant reiteration of the need for examination by lay cancer organizations and physicians, the practice of routine pelvic check-up examinations is becoming more common. Once the patient is examined and places her confidence in the physician, his knowledge and application of diagnostic methods may mean the difference between life and death. The importance in assuming this responsibility was shown in the study mentioned; it was found that the physician was solely responsible for the delay in 15 per cent of the cases.

In order to determine the cause of delay in diagnosis for which the doctor was responsible, family physicians were consulted. It was found that no local examination was made in 49 per cent of the cases and in those in which an examination was made, the diagnosis was incorrect in 48 per cent. That the family physician was not the only practitioner responsible for delay was shown by the fact that 28 cases or about 2.5 per cent occurred on the services of Philadelphia hospitals. The average length of delay in the diagnosis of cancer of the pelvic organs for which the physician was responsible ranged from 7.4 months in cervical carcinoma to 19.0 months in fundal carcinoma.

Howson and Montgomery believed that the best way to prevent these delays is to determine their causes. This can best be accomplished by conference between the specialist and the general practitioner who refers the patient so that obstacles in making the diagnosis can be discovered.

Facilities for accurate diagnosis are now available to any physician who has a speculum, materials for smear or biopsy, and an inquiring mind. The specimens may have to be sent to some larger center for the pathologic diagnosis but for many years specimens for other important tests, such as Wassermann or Kahn tests, have been handled in a similar manner.

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The methods used to diagnose cervical cancer are the cervical and vaginal smear, biopsy, and pathologic examination of excised tissue. The cervical smear, when examined by a qualified pathologist, is a reliable diagnostic method when confirmed by supplementary tests. Numerous reports by various authors have shown its value in detecting unsuspected noninvasive cervical carcinoma. Its reliability is shown by an increasing number of proved cases of cancer in which smears were positive but biopsies negative.

A recent follow-up study of false positive reports at the Vincent Memorial Hospital Laboratory was published by Graham and McGraw. In 8,133 patients 89.5 per cent of the cervical carcinomas and 74.5 per cent of the endometrial carcinomas were diagnosed correctly; this accuracy compares favorably with the serologic test for syphilis which fails to detect approximately 15 per cent of cases beyond the secondary stage. Seventy tests considered positive by the smear technique were unconfirmed by biopsy or curettage. Increased experience with the method enabled these workers in a recent review of the slides to reclassify 62 and exclude cancer but the remaining 8 smears were still considered indicative of carcinoma. The percentage of unconfirmed positive reports had fallen from 16 per cent in 1943 to 1.2 per cent in 1948.

A special study of 8 patients with false positive tests in which the uteri were available for study was made; 4 were diagnosed squamous cell carcinoma; 3 adenocarcinoma, and 1 undifferentiated malignant cells. All of those with the diagnosis squamous carcinoma were observed to have early noninvasive lesions, whereas no carcinoma was noted in the other 4 patients in whom adenocarcinoma was the diagnosis.

These workers, as do others in this field, agree that the smear should always be confirmed by biopsy or curettage. Like any other valuable adjunct it does not supplant the need for sound clinical judgment; hence, radical treatment should never be based on the smear alone.

In regard to cervical smears, the method recommended by Ayre or the two-edged spoon technique suggested by Novak are excellent to obtain tissue for examination. The vaginal smear containing both cervical and endometrial elements is best obtained by the pipette method of Papanicolaou.

The smear method has its greatest value in unsuspected cases of carcinoma in which no cervicitis is present. When extensive cervicitis with areas suggestive of cancer are present, biopsy is usually done. However, the biopsy, formerly considered an infallible diagnostic method, is not without its faults. Many recent articles on cervical biopsy emphasize the necessity for repeated biopsies from various areas of the cervix; hence it must be concluded that a biopsy cannot be depended upon to exclude carcinoma, as cancer may start in an area not examined. When cervicitis is present, the whole diseased area should be removed so that all tissue can be examined and so that the nidus for future carcinoma is removed. This point will be discussed more fully under "Prevention."

The inquiring mind of the physician mentioned previously is especially important in the diagnosis of endometrial carcinoma. As shown by Montgomery, all too frequently patients older than 40 years with irregular bleeding were given hormone injections or were told not to worry because abnormal bleeding was to be expected with the menopause. A diagnostic curettage in patients of this age group should never be delayed.

TREATMENT

Squamous Cell Carcinoma.—Cervical carcinoma comprises from 75 to 85 per cent of uterine carcinomas.

The first real step ahead in the cure of cervical cancer was the radical hysterectomy developed through painstaking efforts of many workers, the most prominent being Schauta, who developed the vaginal approach, and Wertheim, who developed the abdominal approach. The principle underlying these operative procedures was based on the realization that to cure the disease not only the uterus but all the involved tissue, including the lymph glands, should be removed. There were two serious drawbacks to these procedures. First, they were applicable only in the early stages of the disease in which all involved tissues could be removed. Second, the primary mortality was extremely high.

In 1895 the roentgen ray was discovered by Roentgen, and in 1898 Curie discovered radium. Through experimentation and trial and error radiation was noted to have a selective action on tissue; cancer cells could be destroyed by a dose which did not destroy the normal tissues. The principle involved was similar to that involved in surgery; namely, it was necessary to destroy all cancer cells in the pelvis without irreparable harm to normal tissues. It was soon observed that radiation cured many patients with cancer who were far beyond the help of even the most radical operation. Good results in these advanced cases caused radiation to be used in earlier stages of the disease; the ultimate results were so far superior to those obtained by surgery that radiation therapy gradually supplanted surgery in all but a few medical centers.

The effective use of radiation requires special knowledge in many fields to estimate the dose in the individual case. This fact which is still not fully ap-

preciated by some not trained in the use of radium, has resulted in many undertreated and overtreated cases with disastrous outcome. The practice of treating uterine carcinoma by correspondence is mentioned only to be condemned. It would be as reasonable to suppose that instructions issued with a scalpel would fit the recipient to use it safely and effectively in the eradication of cancer. Not until the need for thoroughly trained radiologists to use radium safely is understood and acted upon by the medical profession in general will patients with cancer receive the treatment to which they are entitled.

Advances in radiation have been along several lines. Roentgen therapy was formerly given after radium treatment. It was discovered that the infected bed in carcinoma not only interfered with the effectiveness of the radium but frequently was reactivated by the radiation, resulting in death.

Healy noted that by giving roentgen therapy prior to radium treatment infection was largely cleared by the time roentgen therapy was completed. Increased roentgen dosage has been attained by cross fire through many portals, including vaginal application, and by progressive improvements in apparatus and methods.

In regard to radium, early treatment was by a simple tandem placed in the cervix. Later the tandem was inserted into the cervix and fundus and was supplemented with lateral radiation to the parametria by colpostats in the lateral fornices. To increase the radiation dose in the lateral areas near the pelvic wall needles containing radium were advocated by several, chiefly Pitts and Watermann. Although these workers obtained excellent results, a primary mortality of 2 per cent was attributable to the method.

An interesting approach to the problem of radiation distribution has been made by Sherman and Bonebreak of the Department of Obstetrics and Gynecology at Washington University. Experimentally they have injected the parametrium of rabbits with radioactive colloidal gold. Logically, this approach should be ideal, as the colloidal gold injected into the parametrium is absorbed by the lymphatic vessels which drain into the lymph glands of the pelvis. The work in patients has just been started and as yet does not warrant a preliminary report. If it can be shown clinically that carcinoma cells in the glands are destroyed by the radioactive gold, the method offers great promise.

Real advances in calculation of the amount of radiation delivered to various areas of the pelvis have been made. Until recently such methods have been so cumbersome that their clinical use was not general; techniques have now been simplified so that the isodose curve for each case can be calculated. In the future these techniques will enable a more accurate comparison of results of various methods of treatment, dosages, and types of distribution than hitherto has been possible and, hence, will aid in solving the problem of adequate treatment.

Advances also have been made in the surgical approach to the disease. In the early series of cases in which the Wertheim operation was done, the two main causes of death were infection and shock. With the introduction of the newer antibiotic drugs and the free use of transfusion, many surgical procedures formerly thought impractical are now done with safety. Meigs was the first to attempt to reevaluate the Wertheim operation in the light of these newer advances. He has shown that the primary mortality of radical hysterectomy can approximate that of subtotal hysterectomy if it is performed by a trained surgeon. He warned, however, that should the operation be performed generally by those not conversant with the problems involved, disastrous results will follow. He was of the opinion that many so-called Wertheim operations are not truly radical and are inadequate for cure.

A combination of radiation and removal of lymph glands was suggested by Taussig in 1934 on the premise that metastases to the lymph glands were resistant to radiation. Unfortunately he died before having a series large enough for any definite conclusions. Morton attempted to discover if the premise on which Taussig's work was based, namely that the lymph glands metastases were not affected by radiation, was true. He observed that of the patients who received radiation prior to lymphadenectomy only 11 per cent showed carcinoma in the glands, whereas in those not receiving radiation prior to operation 39 per cent showed glandular involvement. Although the number of cases so far does not give conclusive evidence, Morton was of the opinion that the effectiveness of modern radiation methods makes lymphadenectomy unnecessary.

From this brief summary on treatment it can be seen that radiation is the best treatment for carcinoma not confined to the cervix. Many questions as to the best method of treatment in the early stages of the disease are still unanswered, but, while investigations are being pursued by those best equipped to conduct them, it should not be forgotten that an excellent method, radiation, gives a rate of cure equal to any yet proved.

Pre-Invasive Cervical Carcinoma

A problem introduced in recent years is pre-invasive cervical carcinoma. The whole conception of the speed with which cervical carcinoma invades has been changed by reports of cases in which the carcinoma has remained superficial and noninvasive for many years. Stevenson and Scipiades in 1938 re-

ported a number of cases of proved carcinoma in which biopsies had been negative as long as eight years prior to the time at which cancer was proved. Reexamination of the original negative biopsies revealed that early noninvasive carcinoma had been missed. Payne, in discussion of an article by Corscaden, mentioned one of his own patients in whom the carcinoma evidently had been dormant for thirty-seven years. Since the advent of the diagnostic smear, numerous cases of this type have been reported. It is my belief that a wide conization in all patients with cervical carcinoma should be done to exclude penetration, if possible, and to confirm the diagnosis.

In regard to treatment, there are several schools of thought. Some believe that if subsequent examination shows no penetration, wide excision of the cervix is adequate. The folly of depending on conization alone is demonstrated in a series of cases reported by TeLinde and Galvin who performed complete hysterectomies in a group of patients in whom the diagnosis of carcinoma *in situ* had been made by biopsy. In a subsequent microscopic study of the uteri after removal, 15 of the 16 showed unmistakable evidence of carcinomatous invasion. These observations have caused me to favor radical treatment, preferably radiation, in women at or near the menopause. In younger women a more conservative attitude may be justified if the lesion can be proved noninvasive. Ayre reported 2 such patients who had two full term deliveries after cervical excision. Payne had a patient who at the time of the report was six and one-half months pregnant and on whom he planned to do a cesarean section and hysterectomy. Most gynecologists, including Payne, prefer a complete hysterectomy conserving the ovarian function in young women. If by subsequent microscopic examination the supposed noninvasive carcinoma is observed to be invading, a full course of roentgen therapy can be given. TeLinde does a modified Wertheim operation ligating the uterine vessels laterally to the ureter and removing a portion of the parametrium with the uterus. Meigs has stated that since most cases show invasion, a radical Wertheim procedure is indicated. As larger series of these are reported and five to ten year follow-up data are available, treatment methods will be crystalized.

The importance of checking the cervix for cancer several times during pregnancy is emphasized in a recent article by Hirst. Cervical smears were made and checked by biopsies when indicated; in 222 pregnancies he discovered 1 cervical carcinoma. In a total of 122,799 cases observed in three large maternity services the incidence of cervical carcinoma averaged 0.017 per cent.

Treatment depends on the stage of the pregnancy and the extent of the growth. In general, vaginal delivery should be avoided. In early pregnancy a high supravaginal hysterectomy with postoperative radiation by radium and roentgen ray is done; in late pregnancy, if the child is viable, a Porro operation followed by radiation seems to be the procedure most generally used.

Carcinoma of the Fundus.—The vaginal smear plus curettage has been suggested as the diagnostic procedure used in fundal carcinoma. The treatment of fundal carcinoma has followed a course somewhat similar to that of cervical carcinoma. At first a simple hysterectomy was tried and later, a complete hysterectomy plus bilateral salpingo-oophorectomy. With the introduction of roentgen ray, postoperative radiation was used with greatly improved results. More recently many physicians have used intra-uterine radium, followed by complete hysterectomy and bilateral salpingo-oophorectomy and postoperative roentgen therapy. Here again the distribution of the intrauterine radium has enabled the dose to be increased. Various methods of introducing small sources of radium which have been reported emphasize the necessity of an even distribution of the radium sources throughout the cavity.

The improved results obtained by Heyman of Stockholm have led him to depend on radiation alone except in special cases. Several years ago he reported that results with this plan were as good as those obtained by radiation plus operation. Most workers in this country still believe that radiation plus operation is the preferable plan of treatment; however, in patients who are poor operative risks radiation alone may offer the best chance of survival.

I have several patients in this category who have passed the ten year survival period. One was alive and well nineteen years after her first radium treatment although she had to have the treatment repeated three times during that period. At 79 she did most of her own house work and stated that she enjoyed good health.

PREVENTION

Until a certain cure is discovered, prevention offers the best hope of reducing the mortality rate of uterine cancer. It must constantly be kept in mind that effective procedures which are now available if used consistently will prevent the development of uterine carcinoma. These preventive methods are based on recognition of two predisposing factors: chronic cervicitis and carcinoma potential in the involutional changes.

Chronic Cervicitis.—Small erosions of the cervix and superficial endocervicitis frequently seen in the postpartum patient are easily cured by conservative treatment with the cautery plus acid jelly and douches. However, when irritation persists in spite of such

treatment or in cases of extensive deep-seated cysts, complete removal of the involved tissue is indicated. Prolonged temporizing with ineffectual treatment may permit carcinoma to get a good start before it is realized that malignant change has occurred.

That removal prevents cancer is proved by statistics. In 2,895 cases of cervicitis adequately treated and followed for ten years or longer, Craig noted that not 1 patient developed cervical carcinoma. In January, 1949, we reported a two to fourteen year follow-up study on more than 1,000 patients who had had wide conization of the cervix. No carcinoma of the cervix was noted, and 407 of the patients were followed for more than five years. According to the usual estimates, cancer is observed in 4 per cent of gynecologic patients and 89 per cent of the cancer seen is cervical carcinoma; hence, cancer of the cervix was prevented in at least 125 cases in the combined series. Karnaky's results also confirm the value of conization.

The plan I prefer for removing the chronic cervicitis is wide conization.

Hyams introduced conization, but after using his electrode, I became convinced that a different type for extensive cases of cervicitis was needed. For complete removal of the diseased tissue a special electrode on which I reported in 1935 is used. When facilities for wide conization are not available, the Sturmdorf operation accomplishes the same purpose. The method used should remove the entire area so that careful microscopic study can be made. Destruction of the affected tissue by extensive cautery or coagulation precludes this complete check and invites overlooking an early cancer. As previously mentioned, biopsies from one or even several areas may miss the early growth.

The questions which were answered in our study were (1) does conization prevent cancer and (2) does it affect future childbearing? As was previously stated, no carcinomas were seen later; hence, conization does prevent cancer. Since the incidence of cervical cancer before 30 years of age is as high as 10 per cent in some series, the importance of removing cervicitis early is evident. The old idea of postponing cervical operation until the end of the childbearing period is neither safe nor necessary. In our series there were 63 subsequent deliveries, 49 of which were first pregnancies. In none of the 63 patients was there evidence that conization caused complications at delivery. One patient considered sterile had 4 postconization deliveries. The importance of caring for the cervicitis promptly by conization is further emphasized by the fact that 8 cases of unsuspected cervical carcinomas were discovered, and by the accompanying curettage 8 cases of endometrial carcinomas were discovered.

As a result of early discovery and treatment, 7 of the patients with cervical carcinoma were alive at the time of this report: 2 fourteen years, 1 thirteen years, 1 ten years, 2 six years, and 1 four years after treatment. One refused treatment and is dead. The 8 patients with endometrial carcinoma are alive, 6 from six to twelve years and 2 three years after treatment.

To prevent carcinoma of the cervical stump, hysterectomy if needed should be complete. If hysterectomy is not feasible, a wide conization of the cervix from below should be done.

Involuting Organs.—Much has been written concerning the importance of chronic irritation as a predisposing factor in carcinoma but little to emphasize the potential danger of cancer in involuting organs.

The pelvic organs which become involuted shortly after middle life are the ovaries and uterus. At this time their special functions of hormone production and childbearing are normally over, as the menses usually cease between the ages of 45 and 50 years. When involution proceeds normally, these organs gradually atrophy but if the normal course of events fails to occur, the potential danger of malignancy is real. The continued stimulation of the estrogenic hormones causes recurring cyclic growth of the endometrium at a time in life when normal growth restraint, present in younger individuals, is fading and leads to erratic growth such as certain types of hyperplasia and carcinoma.

With the uterus usually some symptoms such as delayed menopause or abnormal bleeding warn that involution is not proceeding normally. In ovarian cancer the usual symptomless progress to incurability is a silent menace which dooms the patient before she realizes that anything is seriously wrong.

The question what to do with the involuting uterus arises in myomas of the uterus requiring treatment at or near the menopause and in delayed menopause.

My conclusions on the treatment of myomas in patients at or near the menopause have been derived from a detailed study of the problem reported in previous articles. In general, if the patient is a good operative risk I prefer a complete hysterectomy and a bilateral salpingo-oophorectomy to eliminate involuting organs and their future cancer potentiality. In poor risks or in patients who prefer to avoid a major operation radiation, in properly selected cases, effectively stops further growth of the myoma and associated troublesome symptoms in 90 per cent of the cases. A curettage and conization to exclude carcinoma always should be done in conjunction with radium treatment.

Though I observed that the risk of later carcinoma of the uterus or ovary was one-third less in patients receiving radiation than in a series of more than

2,000 patients with myomas who did not receive radiation, 4 of our 536 patients who had radiation for myomas later developed uterine carcinoma and 1 developed ovarian carcinoma. This risk must be considered in deciding the best treatment for the individual patient. If radiation is used, the patient should return for check-up examinations so that additional treatment may be given if indicated.

Several studies on the relation of late menopause to adenocarcinoma of the endometrium, including one in 1935 by Crossen and Hobbs and a later one by Randall, have shown that late menopause is four times more frequent in patients with fundal carcinoma than in those with no malignancy. From these studies and other clinical evidence I believe that menstruation in a patient older than 50 signifies persisting endogenous estrogenic stimulation of the involuting uterus and an increased cancer potential of the endometrium. It is important to eliminate this abnormal influence, for the longer it continues, the greater the likelihood of carcinomatous development in the aging endometrium. Radium treatment easily stops the recurring cyclic stimulation of the ovarian hormone. Curettage in conjunction with radium treatment will exclude any early malignant change.

A word of warning concerning the indiscriminate use of large doses of estrogenic hormone in the menopause, particularly in patients with delayed menopause, should be added. Accumulating reports suggest a causal relationship between estrogens and the development of uterine carcinoma. Even if future evidence does not support this view, the reappearance of bleeding in many patients during estrogen therapy puts the patient and her physician in a quandary; is bleeding the result of early carcinoma or of withdrawal bleeding? Engle has shown that most of the symptoms of the menopause can be controlled by thyroid and phenobarbital with small doses of estrogens by mouth, if needed.

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INCIDENCE OF MALIGNANT TUMORS IN THE GENERAL PRACTICE OF PATHOLOGY IN WEST TEXAS

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THE purpose of this paper is to show the incidence of malignant tumors in a static population which seeks medical care at home. It is believed that figures released by large medical centers sometimes are influenced by the fact that people migrate to these larger places because of the added diagnostic and therapeutic advantages offered. This migration of patients may alter the true statistics of the geographic distribution of malignant disease.

PRESENT STUDY

The present analysis was made from cases observed in a city of about 50,000 people, along with the surrounding trade area. The analysis covered a period of three years from January 1, 1947, to December 31, 1949. During this period 6,898 cases were studied and 1,047 tumors were seen. Of this number 395 were proved microscopically to be malignant. In only 1 case was the diagnosis of a malignant condition made by means of a cytologic smear alone. In all others, tissue that was much more definite in establishing a diagnosis was available for study. Occasionally, tumor material was seen originally as a biopsy specimen, second as a surgical specimen, and finally at autopsy; this was considered as 1 case.

Table 1 shows the methods used in detecting cancer.

TABLE 1.—*Material Studied for Diagnosis of Cancer.*

Source	Cases Studied	Cases Malignant	Per Cent Malignant
Surgical specimens	6,530	338	5.1
Autopsy	205	42	20.4
Sternal puncture	73	14	19.1
Smear (cytology)	90	1	0.011
Total	6,898	395	5.7

Table 2 shows the incidence of benign and malignant lesions in various anatomic regions of the body arranged in the order of their importance. Sex differences in the incidence of malignant lesions are noted. Also included is an analysis by MacDonald[5] of 37,863 cases of cancer in Connecticut so that the relative incidence of tumors in West Texas may be compared to their incidence in another state. In comparing the figures it should be remembered that all cases in the present series were microscopically proved, whereas in the MacDonald series information also was obtained from death certificates.

The statistics in table 3 explain the high incidence of tumors in the skin.

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Read before the Section on Clinical Pathology, State Medical Association of Texas, Annual Session, Fort Worth, May 2, 1950.

SEROLOGIC TESTS

The question as to whether the pathologist should offer additional information on the diagnosis or treatment of malignant disease by methods other than cell study frequently arises. For example, at the annual meeting of the State Medical Association of Texas in 1939, Dr. Cairns[2] spoke on the Weltmann reaction in malignant disease. The majority of articles on chemical and physical changes in blood serum have appeared since 1930, and there have been even more frequent articles in the decade from 1940 to 1950. The work of Huggins on thermal coagulation of serum proteins[4] and of West and others on enzymes,[10] probably have elicited the greatest interest in both the profession and the lay public. Mention also should be made of articles dealing with the Weltmann reaction,[9] the reducing power of serum or plasma by Black,[1] and perhaps the fluorescence of cancer serums by Herley.[3]

Since the publication of these various techniques, research groups have been using them and have started publishing their results. Stettner and his co-workers[8] found that 96 per cent of cancer cases showed abnormalities in the reducing power of the serum. However, tuberculosis, rheumatic fever, and pregnancy confused their results. Nadler[6] worked with the same procedure and found that by routine testing it was possible to detect 76 per cent of the cases of carcinoma at the Touro Infirmary in New Orleans. On the conservative side, Pollack and others[7] warned against relying too greatly on the iodoacetate index. They found slightly more than 8 per cent of the cases showed false negative results and slightly more than 13 per cent were false positives. They stated that, as yet, the iodoacetate index was not suitable for use as a diagnostic test.

In our laboratory, we attempted to obtain a blood sample from cases of malignant disease whenever possible before any treatment was instituted. We were particularly interested in the reaction of serum proteins as described by Huggins.[4] Of 105 patients checked by the Huggins technique, 70 were proved microscopically to have carcinoma and 35 were considered as apparently normal. The results are shown in table 4.

TABLE 2.—*Incidence of Tumors According to Anatomic Site and Sex.*

Site	Total Tumors	Benign Tumors	Present Texas Study: Malignant Tumors						Connecticut Study Malignant Tumors
			In Males		In Females		Total		
			No.	%	No.	%	No.	%	%
Skin	261	163	67	68.0	31	32.0	98	24.8	9.5
Genital tract (female)	327	265	0	0.0	62	100.0	62	15.7	13.6
Alimentary tract	64	3	25	41.0	36	59.0	61	15.4	27.9
Breast	107	60	0	0.0	47	100.0	47	11.9	13.8
Urinary tract	23	0	15	65.0	8	35.0	23	5.8	4.4
Genital tract (male)	151	131	20	100.0	0	0.0	20	5.1	5.3
Lymphoid tissue	16	0	10	62.0	6	38.0	16	4.0	..
Respiratory tract	17	3	9	64.0	5	36.0	14	3.5	3.5
Thyroid gland	22	14	2	25.0	6	75.0	8	2.0	0.4
Metastatic, primary undetermined	8	0	4	50.0	4	50.0	8	2.0	..
Bone marrow	7	0	2	29.0	5	71.0	7	1.8	..
Soft parts	7	1	3	50.0	3	50.0	6	1.5	1.1
Pancreas	4	0	4	100.0	0	0.0	4	1.0	1.9
Eye	4	0	3	75.0	1	25.0	4	1.0	0.3
Central nervous system	4	1	3	100.0	0	0.0	3	0.8	1.8
Placental tissue	8	5	0	0.0	3	100.0	3	0.8	..
Generalized carcinoma, primary undetermined	3	0	2	66.7	1	33.3	3	0.8	4.7
Liver, primary	2	0							
Gallbladder	2	0	5	86.0	1	14.0	6	1.5	1.7
Common bile duct	2	0							
Skeletal system	7	6	0	0.0	1	100.0	1	0.3	1.0
Adrenal gland	1	0	1	100.0	0	0.0	1	0.3	.09
Total	1,047	652	175		220		395		

TABLE 3.—*Incidence of Various Types of Skin Tumors.*

	Total	Male	Female
Squamous cell carcinoma	49	39	10
Basal cell carcinoma	40	24	16
Melanoma, malignant	9	4	5
Nevus cell tumors	57	8	49
Warts	26	15	11
Hemangioma	24	7	17
Lipoma	19	6	13
Fibroma	14	12	2
Hydradenoma	10	6	4
Wart, seborrheic	8	5	3
Neurofibroma	5	0	5
Total	261	126	135

TABLE 4.—*Results of Thermal Coagulation Test of Serum Proteins Used to Detect Carcinoma.*

	No. Cases	False Positive	False Negative	% of Error
Normal patients	35	3	0	8.5
Carcinomatous patients	70	0	3	4.2

DISCUSSION

An analysis of table 2 is rather interesting. In at least three anatomic groups it would appear that there are significant differences in the incidence of malignant disease in West Texas as compared to those in Connecticut. In our series, 24.8 per cent of all malignancies occurred in the skin as compared to 9.5

per cent in Connecticut, and thyroid carcinomas showed a frequency five times greater in Texas. On the other hand, alimentary tract malignant lesions were only about one-half as frequent in Texas as in Connecticut. It must be remembered that our series of cases is small compared to the large number reported by MacDonald and that as a consequence these differences may not be valid. It may be suggested, however, that exposure to the sun influences the incidence of skin cancer. The higher rate of thyroid carcinomas and lower incidence of alimentary tract malignant disease in Texas needs additional study.

Concerning the so-called tests for cancer, again it must be remembered that our series is small. The tests may prove to be helpful but certainly never will replace a careful clinical history, physical examination, and study of biopsy material.

These tests no doubt have their greatest use in follow-up studies on known cases of carcinoma. If tests on a patient give rather abnormal results before any treatment is instituted and if after adequate treatment the test results return to normal, it might be postulated that the patient's carcinoma has been eliminated. However, time and observation of the individual cases will be necessary to prove this point.

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NEWS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Galveston, May 1-2, 1951. Dr. William M. Gambrell, Austin, Pres.; Tod Bates, 700 Guadalupe St., Austin, Executive Secy.

American Medical Association, Atlantic City, June 11-15, 1951. Dr. Elmer L. Henderson, Louisville, Ky., Pres.; Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secy.

NATIONAL AND REGIONAL

American Academy of Allergy. Dr. Walter S. Burrage, Milwaukee, Pres.; Mr. James O. Kelley, 208 E. Wisconsin Ave., Milwaukee 2, Executive Secy.

American Academy of Dermatology and Syphilology. Dr. Earl D. Osborne, Buffalo, N. Y., Pres.; Dr. John E. Rauschkolb, 25 Prospect Ave., N. W., Cleveland 15, Secy.

American Academy of General Practice. Stanley R. Truman, Oakland, Calif., Pres.; Mr. Mac F. Cahal, 406 W. 34th St., Kansas City 2, Executive Sec'y.

American Academy of Neurological Surgery. Dr. William S. Keith, Toronto, Canada, Pres.; Dr. T. C. Erickson, 1300 University Ave., Madison 5, Wis., Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 14-18, 1951. Dr. Derrick Vail, Chicago, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Toronto, Oct. 20-25, 1951. Dr. Paul W. Beaven, Rochester, N. Y., Pres.; Dr. C. G. Grulee, 636 Church St., Evanston, Ill., Secy.

American Association for Thoracic Surgery, Atlantic City, N. J., April 16-18, 1951. Dr. Alfred Blalock, Baltimore, Pres.; Dr. Brian Blades, 901 23rd St. N. W., Washington, D. C., Secy.

American Association of Genito-Urinary Surgeons, Skytop, Pa., May 16-18, 1951. Dr. Roger C. Graves, Boston, Pres.; Dr. Norris J. Heckel, 122 S. Michigan Ave., Chicago 3, Secy.

American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, Hot Springs, Va., Sept. 6-8, 1951. Dr. James K. Quigley, Rochester, N. Y., Pres.; Dr. William F. Mengert, 2211 Oak Lawn Ave., Dallas, Secy.

American Cancer Society. Dr. Guy Aud, Louisville, Ky., Pres.; Mr. M. R. Runyon, 47 Beaver St., New York, Exec. Vice-Pres.

American College of Allergists. Dr. John H. Mitchell, Columbus, Ohio, Pres.; Dr. Fred W. Wittich, 423 La Salle Medical Building, Minneapolis 2, Secy.

American College of Chest Physicians, Atlantic City, N. J., June 7-10, 1951. Dr. Louis Mark, Columbus, Ohio, Pres.; Mr. Murray Kornfeld, 500 N. Dearborn St., Chicago 10, Executive Secy.

American College of Physicians, St. Louis, April 9-13, 1951. Dr. William S. Middleton, Madison, Wis., Pres.; Mr. E. R. Loveland, 4200 Pine St., Philadelphia 4, Secy.

American College of Radiology, Atlantic City, June 10, 1951. Dr. C. Edgar Virden, Kansas City, Mo., Pres.; Mr. W. C. Stronach, 20 N. Wacker Drive, Chicago 6, Executive Secy.

American College of Surgeons San Francisco Nov. 5-9, 1951. Dr. Henry W. Cave, New York, Pres.; Dr. Paul B. Magnuson, 40 E. Erie St., Chicago 11, Secy.

American Congress of Physical Medicine, Denver, Sept 3-8, 1951. Dr. Arthur L. Watkins, Boston, Pres.; Dr. Richard Kovacs, 2 E. 88th St., New York 28, Secy.

American Dermatological Association, Hot Springs, Va., May 23-26, 1951. Dr. Henry E. Michelson, Minneapolis, Pres.; Dr. L. A. Brunsting, 102 2nd Ave., S. W., Rochester, Minn, Secy.

American Gastro-Enterological Association, Atlantic City, June 8-9, 1951. Dr. John G. Mateer, Detroit, Pres.; Dr. Dwight L. Wilbur, 655 Sutter St., San Francisco, Secy.

American Gynecological Society, New York, May 7-9, 1951. Dr. Frederick Irving, Brookline, Pres.; Dr. Norman F. Miller, 1313 E. Ann St., Ann Arbor, Mich., Secy.

American Hospital Association. Dr. Charles F. Wilinsky, Boston, Pres.; Mr. George P. Bugbee, 18 E. Division St., Chicago, Executive Secy.

American Laryngological, Rhinological, and Otological Society, White Sulphur Springs, W. Va., May 6-8, 1951. Dr. Gordon B. New, Rochester, Minn., Pres.; Dr. Louis H. Clerf, 1530 Locust St., Philadelphia, Secy.

American Neurological Association, Atlantic City, June 18-20, 1951. Dr. Wilder Penfield, Montreal, Canada, Pres.; Dr. H. Houston Merritt, 710 W. 168th St., New York 32, Secy.

American Ophthalmological Society, White Sulphur Springs, W. Va., June 7-9, 1951. Dr. John H. Dunnington, New York, Pres.; Dr. M. C. Wheeler, 30 W. 59th St., New York 19, Secy.

American Orthopedic Association, White Sulphur Springs, W. Va., June 20-23, 1951. Dr. James S. Speed, Memphis, Pres.; Dr. C. Leslie Mitchell, Henry Ford Hospital, Detroit 2, Secy.

American Pediatric Society, Atlantic City, May 2-5, 1951. Dr. Bronson Crothers, Boston, Pres.; Dr. Henry G. Poncher, 1819 W. Polk St., Chicago 12, Secy.

American Proctologic Society, Atlantic City, June 7-10, 1951. Dr. Hoyt R. Allen, Little Rock, Pres.; Dr. W. Wendell Green, 1838 Parkwood Ave., Toledo 2, Secy.

American Psychiatric Association, Cincinnati, May 7-11, 1951. Dr. John C. Whitehorn, Baltimore, Pres.; Dr. R. Finley Gayle, 501 E. Franklin St., Richmond, Va., Secy.

American Public Health Association. Dr. W. P. Shepard, San Francisco, Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Secy.

American Society of Anesthesiologists, Washington, D. C., Nov. 5-8, 1951. Dr. Urban H. Eversoll, Boston, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph St., Chicago, Secy.

American Society of Clinical Pathologists, Chicago, Oct. 13-20, 1951. Dr. F. William Sundermann, Atlanta, Ga., Pres.; Dr. Clyde G. Culbertson, Indiana University School of Medicine, Indianapolis, Secy.

American Surgical Association, Washington, D. C., April 11-13, 1951. Dr. Samuel C. Harvey, New Haven, Conn., Pres.; Dr. Nathan Womack, University of Iowa, Iowa City, Secy.

American Urological Association, Chicago, May 21-24, 1951. Dr. Thomas D. Moore, Memphis, Tenn., Pres.; Dr. C. H. deT. Shivers, 121 S. Illinois Ave., Atlantic City, N. J., Secy.

Association of American Physicians and Surgeons, Indianapolis, Oct. 4-6, 1951. Dr. Lawerence Shinabery, Fort Wayne, Ind., Pres.; Mr. Harry E. Northam, 360 N. Michigan Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 11-14, 1951. Dr. Custis Lee Hall, Washington, D. C., Pres.; Dr. Arnold S. Jackson, 1516 Lake Shore Drive, Chicago, Secy.

National Tuberculosis Association, Cincinnati, May 14-18, 1951. Dr. David T. Smith, Durham, N. C., Pres.; Dr. James E. Perkins, 1790 Broadway, New York 19, Managing Director.

Radiological Society of North America, Chicago, Dec. 3-7, 1951. Dr. John S. Bouslog, Denver, Pres.; Dr. D. S. Childs, Medical Arts Bldg., Syracuse 2, N. Y., Secy.

Southern Medical Association, Dallas, Nov. 5-8, 1951. Dr. Curtice Rosser, Dallas, Pres.; Mr. C. P. Loranz, 1020 Empire Bldg., Birmingham, Ala., Secy.

Southern Psychiatric Association. Dr. R. Burke Suitt, Durham, N. C., Pres.; Dr. Newdigate M. Owensby, Medical Arts Bldg., Atlanta, Ga., Secy.

Southern Surgical Association, Hot Springs, Va., Dec. 4-6, 1951. Dr. Frank C. Wilson, Birmingham, Ala., Pres.; Dr. John C. Burch, 2112 West End Ave., Nashville, Tenn., Secy.

Southwest Allergy Forum, San Antonio, April 8-10, 1951. Dr. J. H. W. Rouse, San Antonio, Pres.; Dr. Boen Swinny, 224 Medical Arts Bldg., San Antonio 5, Secy.

Southwest Regional Cancer Conference. Secy., 209 Medical Arts Bldg., Fort Worth.

Southwestern Medical Association, El Paso, Oct. 18-20, 1951. Dr. L. W. Breck, El Paso, Pres.; Dr. W. W. Schuessler, 1415 First National Bank Bldg., El Paso, Secy.

Southwestern Surgical Congress, St. Louis, Sept. 24-26, 1951. Dr. Leo J. Starry, Oklahoma City, Pres.; Dr. C. R. Rountree, 1227 Classen, Oklahoma City 3, Secy.

Tri-State Medical Assembly. Dr. W. S. Terry, Jefferson, Pres.; Dr. James Harris, Marshall, Secy.

United States-Mexico Border Public Health Association, Los Angeles, April 4-6, 1951. Dr. Luis Arriaga Velez, Chihuahua, Mexico, Pres.; Dr. M. F. Haralson, 314 U. S. Court House, El Paso, Secy.

STATE

Texas Academy of General Practice, Houston, September 10-11, 1951. Dr. Andrew S. Tomb, Victoria, Pres.; Dr. B. H. Bayer, 104 E. Twentieth St., Houston, Secy.

Texas Academy of Internal Medicine, Galveston, December 8-9, 1951. Dr. W. L. Marr, Galveston, Pres.; Dr. John S. Chapman, 3810 Swiss Ave., Dallas, Secy. Meetings restricted to members.

Texas Air-Medics Association, Galveston, April 30, 1951. Dr. D. P. Laugenour, Dallas, Pres.; Dr. C. F. Miller, 906 Medical Arts Bldg., Waco, Secy.

Texas Association of Obstetricians and Gynecologists, Austin, February, 1952. Dr. S. Foster Moore, San Antonio, Pres.; Dr. Carey Hiett, 603 College Ave., Fort Worth, Secy.

Texas Chapter, American College of Chest Physicians, Galveston, April 30, 1951. Dr. David McCullough, Kerrville, Pres.; Dr. Henry R. Hoskins, 514 Medical Arts Bldg., San Antonio, Secy.

Texas Club of Internists. Dr. Ghent Graves, Houston, Pres.; Dr. Hatch W. Cummings, Jr., Houston, Secy.

Texas Dermatological Society, Galveston, April 30, 1951. Dr. J. G. Brau, Dallas, Pres.; Dr. W. Harris Connor, 601 Medical Arts Bldg., Houston, Secy.

Texas Diabetes Association, Galveston, April 29, 1951. Dr. B. F. Smith, Houston, Pres.; Dr. W. N. Powell, W. Ave. F, Temple, Secy.

Texas Division, American Cancer Society, Fall, 1951. Mr. Frank C. Smith, Houston, Pres.; Mr. J. Louis Neff, 2307 Helena St., Houston 6, Executive Director.

Texas Heart Association, Galveston, April 30, 1951. Dr. George W. Parson, Texarkana, Pres.; Miss Roberta Miller, 411 Reserve Loan Life Bldg., Dallas, Executive Secy.

Texas Hospital Association, San Antonio, April 24-26, 1951. Mr. Roy Wilmesmeier, Houston, Pres.; Mrs. Ruth Barnhart, 2210 Main St., Dallas, Secy.

Texas Neuropsychiatric Association, Galveston, April 30, 1951. Dr. Martin L. Towler, Galveston, Pres.; Dr. James Blair, San Antonio, Secy.

Texas Orthopedic Association, Galveston, April 30, 1951. Dr. Louis Breck, El Paso, Pres.; Dr. Margaret Watkins, 3629 Fairmount St., Dallas, Secy.

Texas Pediatric Society, Houston, October 12-13, 1951. Dr. Thomas D. McCrummen, Austin, Pres.; Dr. M. C. Carlisle, 1410 Austin Ave., Waco, Secy.

Texas Public Health Association. Mr. Barnie A. Young, Austin, Pres.; Mr. Earle W. Sudderth, Dallas County Health Department, Court House, Dallas, Executive Secy.

Texas Radiological Society. Curtis H. Burge, Houston, Pres.; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secy.

Texas Railway and Traumatic Surgical Association, Galveston, April 30, 1951. Dr. R. J. White, Fort Worth, Pres.; Dr. W. F. Parsons, First National Bank Bldg., Fort Worth, Secy.

Texas Rheumatism Association, Galveston, December, 1951. Dr. G. W. N. Eggers, Galveston, Pres.; Dr. Robert H. Mitchell, 210 Medical Arts Bldg., Fort Worth, Secy.

Texas Society for Mental Health. Dr. Warren T. Brown, Houston, Pres.; Mrs. Elizabeth F. Gardner, 2504 Jarratt Ave., Austin 21, Executive Secy.

Texas Society of Anesthesiologists. Galveston, April 30, 1951. Dr. Russell Bonham, Houston, Pres.; Dr. Werner Hoeflich, 2301 Reba, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Galveston, April 30, 1951. Dr. Carl G. Giesecke, San Antonio, Pres.; Dr. John S. Bagwell, Medical Arts Bldg., Dallas, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, 1951. Dr. Edward D. Dumas, San Antonio, Pres.; Dr. Lyle Hooker, 627 Esperson Bldg., Houston, Secy.

Texas Society of Pathologists, Galveston, May 2, 1951. Dr. Stuart A. Wallace, Houston, Pres.; Dr. A. O. Severance, 205 Camden, San Antonio, Secy.

Texas Surgical Society, Galveston, April 2-3, 1951. Dr. Edward White, Dallas, Pres.; Dr. Truman G. Blocker, 927 Strand, Galveston, Secy.

Texas Tuberculosis Association, Dallas, April 13-14, 1951. Dr. Elliott Mendenhall, Dallas, Pres.; Miss Pansy Nichols, 208 E. Ninth, Austin, Executive Secy.

Texas Urological Society, Dallas, 1952. Dr. William H. Heck, San Antonio, Pres.; Dr. J. D. Mitchell, 1414 Medical Arts Bldg., Dallas, Secy.

DISTRICT

Second District Society. Dr. A. H. Daniell, Brownfield, Pres.; Dr. C. B. Knox, Jr., Seagraves, Secy.

Third District Society, Amarillo, April 10-11, 1951. Dr. Allen T. Stewart, Lubbock, Pres.; Dr. James T. Hall, 1302 Avenue Q, Lubbock, Secy.

Fourth District Society, Brady, November, 1951. Dr. S. Braswell Locker, Brownwood, Pres.; Dr. B. A. Hallum, Brady, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 6-7, 1951. Dr. E. King Gill, Corpus Christi, Pres.; Dr. Foy Moody, 1611 Fifth St., Corpus Christi, Secy.

Seventh District Society, June, 1951. Dr. John F. Thomas, Austin, Pres.; Dr. George W. Tipton, 502 W. 15, Austin, Secy.

Eighth District Medical Society. Dr. Leonard Johnson, El Campo, Pres.; Dr. Robert Casey, Texas City, Secy.

Ninth District Society. Dr. F. Ray Black, Huntsville, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, Secy.

Tenth District Medical Society. Dr. T. A. Fears, Beaumont, Pres.; Dr. J. M. White, Jr., 3149 Proctor, Port Arthur, Secy.

Eleventh District Society, Athens. Dr. Griff T. Ross, Mount Enterprise, Pres.; Dr. John M. Travis, Jr., Jacksonville, Secy.

Twelfth District Society, Bryan, July 10, 1951. Dr. S. C. Richardson, Bryan, Pres.; Dr. J. C. Terrell, Stephenville, Secy.

Thirteenth District Society, Fort Worth, June 27, 1951. Dr. R. L. Daily, Wichita Falls, Pres.; Dr. S. W. Wilson, Medical Arts Bldg., Fort Worth, Secy.

Fourteenth District Society, McKinney, June 12, 1951. Dr. Mayo Tenery, Waxahachie, Pres.; Dr. L. W. Johnston, 502 W. College St., Terrell, Secy.

Fifteenth District Society, 1951. Dr. R. G. Granbery, Marshall, Pres.; Dr. H. O. Padgett, Marshall, Secy.

CLINICS

Dallas Southern Clinical Society. Miss Betty Elmer, Medical Arts Bldg., Dallas 1, Executive Secy.

International Post-Graduate Medical Assembly of Southwest Texas, San Antonio, Jan. 22-24, 1952. Dr. John J. Hinchey, P. O. Box 2445, San Antonio, Secy.

New Orleans Graduate Medical Assembly. Dr. Woodard D. Beacham, Room 105, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Sept. 19, 1951. Dr. W. L. Powers, Hamilton Bldg., Wichita Falls, Chairman.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 29-Nov. 1, 1951. Mrs. Muriel R. Waller, 512 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Post Graduate Medical Assembly of South Texas, Houston, July 23-25, 1951. Dr. Donald M. Paton, Secy., 229 Medical Arts Bldg., Houston.

INTERNATIONAL AND NATIONAL MEETINGS

The Second International Poliomyelitis Conference of the International Poliomyelitis Congress has been scheduled for September 3-7, 1951, in Copenhagen. The National Foundation for Infantile Paralysis of the United States and the Danish National Association for Infantile Paralysis are sponsors of the meeting. For further information write to the National Foundation for Infantile Paralysis, 120 Broadway, New York 5.

The Pan-Pacific Surgical Association will hold its fifth congress November 7-19, 1951, in Honolulu. Information may be obtained from Dr. F. J. Pinkerton, president, Suite 7, Young Building, Honolulu 13.

The Seventeenth Annual Meeting of the American College of Chest Physicians will be held in Atlantic City, N. J., June 7-10, 1951. Dr. George R. Herrmann, Galveston, will present a paper. Dr. Alvis E. Greer, Houston, is second vice-president of the college; Dr. Robert B. Homan, Jr., El Paso, is a regent; and Dr. Elliott Mendenhall, Dallas, is governor of the college for Texas. Information on the meeting may be secured from Murray Kornfeld, executive secretary, 500 North Dearborn Street, Chicago 10, Ill.

The Eighth Annual Meeting of the American Medical Writers' Association is to be held in Peoria, Ill., September 19 during the annual meeting of the Mississippi Valley Medical Society scheduled for September 19-21 in Peoria. For additional information write to Harold Swanberg, secretary, 510 Main Street, Quincy, Ill.

The American Association of the History of Medicine has accepted the invitation of the Johns Hopkins University to hold its annual meeting May 3-5, 1951, in Baltimore. The Institute of the History of Medicine and the Welch Medical Library will act as hosts. Write for information to R. H. Shryock, 1900 E. Monument Street, Baltimore 5.

The Third Western Institute on Epilepsy, formerly scheduled for June 15-17, 1951, in Salt Lake City, has been changed to the week-end of June 22-24. Physicians wanting additional information may write Dr. Harriot Hunter, president, at 4200 East Ninth Avenue, Denver 7, Colo.

PERSONALS

Dr. Louis Tobian, Jr., Dallas, was the only Texan among forty-one scientists who were granted research fellowship awards totaling $173,800 by the American Heart Association. Dr. Tobian will carry on his research at Southwestern Medical School of the University of Texas.

Dr. Fred Englerth, Harlingen, was guest instructor in the pathology and external diseases of the eye at the Tulane University Graduate School, New Orleans, in February, the Valley Morning *Star* reports.

Dr. Leigh E. Wilcox and *Dr. Clement C. Boehler,* El Paso, spoke at a meeting of the Southwestern New Mexico Medical Conference in Deming, N. Mex., states the El Paso *Times.*

Dr. George W. Jackson, formerly of Little Rock, Ark., has been named medical director of the Board for Texas State Hospitals and Special Schools. A graduate of the University of Tennessee College of Medicine, Dr. Jackson was superintendent of the Arkansas State Hospital before his appointment in Texas.

Drs. W. Compere Basom, Morton H. Leonard, Louis W. Breck, and *George N. Arledge,* El Paso, presented an exhibit on "Intermedullary Nailing of Fractures of the Femur" at the annual meeting of the American Academy of Orthopedic Surgeons in Chicago early in February, according to the El Paso *Times.*

Tod Bates, Austin, Executive Secretary of the State Medical Association, has been appointed an admiral in the Texas Navy by Governor Allan Shivers.

The appointment of ten doctors on a medical committee for the National Amateur Athletic Union Women's Basketball tournament which began in Dallas March 18 was announced in the Dallas Daily *Times Herald.* The committee included *Drs. Virgil M. Payne, Jr., W. N. (Bill) Fuqua, J. Morris Horn, Ben H. Carroll, James M. McKinney, James M. Kent, Porter K. Mason, John W. Lanius, Gordon K. Wallace,* and *William H. Bassett.*

Dr. Philip J. Cecala of the Houston public school health staff was appointed to head the school health office February 12, states the Houston *Chronicle.*

The appointment of *Dr. Phillip Prieto* as a member of the El Paso Housing Authority was announced recently in the El Paso *Times.*

Dr. Adolph Herff, retired physician of Boerne, was honored recently by the Hermann Sons Lodge, informs the Boerne *Star.* Dr. Herff, who has belonged to a San Antonio lodge of the Order of Hermann Sons for seventy years, was presented a medal by the grand president of the Sons of Hermann of Texas.

Dr. John M. Thiel, professor of surgery at the University of Texas Medical Branch, was made supernumerary honorary chamberlain of the sword and cape, the highest honor the Catholic Church can bestow on a layman, in a ceremony in Galveston in January, the Houston *Chronicle* reports.

Dr. A. L. Thomas, who has practiced medicine in Ennis since 1904, received the Ennis Lions Club's citizenship award for 1950, states the Ennis *News.*

Dr. W. R. Nail, Waco, celebrated his ninetieth birthday February 20, the Waco *Times-Herald* reports. Dr. Nail has three sons and two grandsons who are doctors or dentists.

A testimonial dinner honoring *Dr. J. Allen Kyle,* Houston, for his thirty-seven years as a director of the Houston National Bank was held recently, the Houston *Chronicle* states.

Dr. and Mrs. Charles G. Freundlich, Houston, are the recent parents of a girl, states the March issue of *Medical Records and Annals.*

University of Texas Medical Branch

Recent lecturers at the University of Texas Medical Branch, Galveston, were Dr. Eric Ogden, professor of physiology at Ohio State University, Columbus, who gave a series of lectures, demonstrations, and seminars on "Recent Advances in Cardiovascular Physiology," and Dr. A. C. Ivy, vice-president of the University of Illinois, who delivered an Alpha Kappa Kappa lectureship on "Pancreatitis."

The National Research Committee on Burns visited the Medical Branch in March to survey the exposure method of treating burns revised under the direction of Dr. T. G. Blocker, Jr., professor of plastic and maxillo-facial surgery.

Charles M. Pomerat, Ph. D., director of the Tissue Culture Laboratory of the Medical Branch, has an exhibit, "Evalua-

ion of a Hobby," at the George Walter Vincent Smith Art Museum, Springfield, Mass. The exhibit material began with drawings for scientific notebooks at Woods Hole and Harvard.

Texas Association of Obstetricians and Gynecologists

Dr. S. Foster Moore, San Antonio, was elected president of the Texas Association of Obstetricians and Gynecologists at the annual meeting February 9 and 10 in Galveston. Other officers for 1951 are Dr. George F. Adam, Houston, president-elect; Dr. John J. Delaney, Galveston, vice-president; and Dr. Carey Hiett, Fort Worth, secretary-treasurer. Dr. D. D. Wall, San Angelo, and Dr. Howard O. Smith, Marlin, retiring president, were elected to the council.

The following scientific program was presented:

FEBRUARY 9, 1951

Postural Shock in Pregnancy—Dr. William A. McRoberts, Houston.
Discussion—Dr. Maurice J. Meynier, Houston.
Syphilis of the Cervix; Differential Diagnosis and Treatment—Dr. William F. Guerriero, Dallas.
Discussion—Dr. Herman Gardner, Houston.
Modern Trend of Sterilizations—Dr. Theron H. Funk, Fort Worth.
Discussion—Dr. Truett Morris, Dallas.
Problem of Duplicity in the Female Generative Organs—Dr. Felix Rutledge, Houston, and Dr. Raleigh F. Trotter, Denton.
Discussion—Dr. E. O. Strassman, Houston.
J. F. Y. Paine Address: Cervical Cancer—Dr. Norman Miller, Ann Arbor, Mich.
Discussion of Amniotic Fluid Embolism with Report of a Case Resulting in Death—Dr. Maurice J. Meynier, Jr., Houston.
Discussion—Dr. P. M. Marcuse, Houston.
C. R. Hannah Lecture: Obstetrics?—Dr. Julius McIver, Dallas.
Elective Induction of Labor—Dr. Lee M. Miles, Albuquerque, N. Mex.
Discussion—Dr. Joseph R. Harris, Lubbock.
Saddle Block Anesthesia and Its Complications—Dr. L. F. Schuhmacher, Houston.
Discussion—Dr. Gardner, Houston.
President's Address: Rise and Development of Gynecology—Dr. Howard O. Smith, Marlin.

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Preliminary Studies on Duration of Pregnancy—Dr. Willard Cooke, Galveston.
Clinical and Pathologic Conference—Dr. Paul Brindley, Galveston.
Placental Blood—Dr. W. Ray Hepner, Galveston.
Diagnosis and Management of Common Cutaneous Eruptions of Particular Interest to Obstetricians and Gynecologists—Dr. Clarence Livingood, Galveston.
Leukoplakia of the Vulva—Dr. Miller.

Dr. Robert Johnston, Houston, paid tribute to the late Dr. E. W. Bertner, founder of the Texas Medical Center.

The next meeting of the Association will be held in Austin in February, 1952.

NEW DIRECTIVES ON MEDICAL OFFICERS

During the months of April and May, sixty-six reserve medical officers in Texas were scheduled for call to active duty by the Army, the State Advisory Committee has reported. Established procedure calls for the National Advisory Committee to advise the State Advisory Committee in sufficient advance time to permit study at both the local and state levels of any case wherein exceptional conditions which may indicate a necessity for delay in reporting are reported to exist.

General working procedures were set up in Texas following the Washington, D. C., conference of state advisory committees with the National Advisory Committee to Selective Service on January 12 and 13. Texas was fortunate in already having reactivated its "procurement and assignment committees" (now the "local advisory committees") at the local level through county medical societies of the State Medical Association of Texas.

The State Committee, headed by Dr. R. A. Trumbull of Dallas, reported also that it has been instructed to begin an analysis of an initial list of Naval reservists within Category 3 (doctors who were not deferred in World War II to complete their medical education, but who have had no military service since September 16, 1940). Tod Bates, Executive Secretary, explained that the committee assumes that physicians within that category are likely to be called before many weeks, since it has been definitely determined that doctors in the third category would not be called until the preceding categories have been exhausted.

Exceptions to this policy are members of organized reserve units and doctors in the "scarce specialties," neither of which need necessarily be called in priority order.

All calls to active duty to date, with the exceptions above, have been among doctors in the first two categories. Category 1 includes physicians, dentists, and veterinarians who were deferred from military duty in World War II to complete their medical education (at government or personal expense) and who have had less than ninety days' subsequent service; Category 2 includes those who were so deferred but who have had more than ninety days and less than twenty-one months' service.

By executive order dated March 31, Selective Service draft boards were given a further clarification of "necessary employment" as a guide in classifying special registrants. The order defined such "necessary employment" as follows:

"A registrant's employment in industry or other occupation, service in office, or activity in research, or medical, scientific, or other endeavors, shall be considered to be necessary to the maintenance of the national health, safety, or interest only when all of the following conditions exist:

"(1) The registrant is, or but for a seasonal or temporary interruption would be, engaged in such activity.

"(2) The registrant cannot be replaced because of a shortage of persons with his qualifications or skill in such activity.

"(3) The removal of the registrant would cause a material loss of effectiveness in such activity."

The State Committee expressed enthusiasm and appreciation of the "excellent spirit of cooperation and earnest effort to act with greatest fairness to the communities and doctors concerned, as well as with full understanding of the needs of our armed forces."

TEXAS MEDICAL CENTER

Building sites of the Texas Children's Hospital and St. Luke's Hospital in Houston were dedicated February 20 by the Rt. Rev. Clinton S. Quin, bishop of the Episcopal Diocese of Texas. Construction of the buildings in the Texas Medical Center is expected to begin in the summer.

The $1,500,000 children's hospital and the $3,000,000 general hospital will have a connecting wing housing the kitchen, administrative office, surgical pavilion, laboratory, and other facilities which will be used by both hospitals.

Postgraduate Pediatric Course in Little Rock

A postgraduate pediatric course will be given by the Pediatric Department of the University of Arkansas School of Medicine, Little Rock, on May 14 and 15. Dr. Myron E. Wegman of Louisiana State University Medical School, New Orleans, and Dr. Gilbert B. Forbes of Southwestern Medical School, Dallas, will be guest speakers. Physicians, nurses, and public health workers are invited to attend. No fee will be charged for the course. Further information may be obtained by writing to Dr. William A. Reilly, Pediatric Department, University of Arkansas School of Medicine, Little Rock.

TEXAS SOCIETY FOR MENTAL HEALTH

Dr. Warren T. Brown, Houston, was elected president of the Texas Society for Mental Health at the annual conference of the society in Galveston on March 8 and 9. Other officers for 1951 are Mr. William Grant, Jr., Baytown, vice-president; Mrs. Ernestine Blackwell, D. Ed., Austin, vice-president; Mrs. Fanny B. Vanderkooi, Denton, secretary; and Mr. Fred Adams, Austin, treasurer.

Luther W. Youngdahl, governor of Minnesota, spoke to 1,200 members and guests on a state's obligation to its citizens in the prevention and treatment of mental illness. Dr. Alfonso Millan, Mexico City, vice-president of the World Federation for Mental Health, spoke at a general session. More than 400 persons registered for the general sessions.

A resolution was adopted urging opposition to S. B. 278 and S. B. 315 which would alter the present structure of the State Board for Hospitals and Special Schools. Another resolution supported Senate Joint Resolution 7, which would provide for submission to the Texas electorate of a Constitutional amendment allowing passage of laws to permit in certain cases hospitalization of mentally ill patients without the necessity of a jury trial.

The importance of action by local mental health societies and others interested in securing facilities for the care of mental patients in hospitals now under construction throughout the state with the assistance of federal funds was emphasized. A research committee to gather information on mental health resources in Texas was reestablished, and Fort Worth was chosen as the site for the 1952 conference. Twenty members were elected to the board of directors.

Oklahoma Rheumatism Society

The third annual meeting of the Oklahoma Rheumatism Society will be held Sunday, May 20, in Tulsa, Okla. Dr. S. Y. Andelman will preside at the meeting at which the following program will be presented:

Arthritis (motion picture).

Rheumatoid Spondylitis: Pathologic Considerations — Dr. T. S. Gafford, Muskogee.

Hypoparathyroidism and Hyperparathyroidism—Dr. E. C. Reifenstein, Jr., Oklahoma City.

Steroids in Arthritis—Max N. Huffman, Ph. D., Oklahoma City.

Bones, Joints, and Nutrition—Dr. Lucile S. Blachly, Oklahoma City.

Orthopedic Aspects of Arthritis—Dr. J. L. Richardson, Tulsa.

Degenerative Arthritis—Dr. William K. Ishmael, Oklahoma City.

Shoulder-Hand Syndrome—Dr. Otto Steinbrocker, New York.

Round-table Discussion: Rheumatoid Arthritis—Dr. Steinbrocker, moderator; Drs. Andelman, E. Goldfain, Oklahoma City; and Port Johnson, Muskogee, participants.

The registration fee is $2 for members and $1 for nonmembers. Further details may be obtained from Arthur A. Hellbaum, Secretary, Oklahoma Rheumatism Society, 800 Northeast Thirteenth St., Oklahoma City 4.

LIBRARY SECTION

PACKAGE SERVICE

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Request for packages should be addressed "Library, State Medical Association of Texas, 700 Guadalupe Street, Austin, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Packages are allowed to remain in the hands of the borrower for 14 days.

ACCESSIONS

The following additions were made to the Library during March:

Reprints received, 1,204.

Journals received, 306.

Books received, 22.

Yearbook, American College of Surgeons, 1950-1952, R. R. Donnelley and Sons, Chicago and Crawfordsville, Ind.

Who Was Who in America, Volumes 1 and 2, 1897-1950, A. N. Marquis Company, Chicago.

Hemodynamics in Failure of the Circulation, Youmans and Huckins, Charles C. Thomas, Springfield, Ill.

John Hunter, Roadhouse; *Treatment of Asthma, Somatic and Psychiatric,* Abramson; *Textbook of Physiology and Biochemistry,* Bell and others; *Synopsis of Surgical Anatomy,* McGregor; *The Doctor, His Career, His Business, His Human Relations,* Truman, Williams and Wilkins, Baltimore.

Paracelsus, Magic into Science, Pachter, Henry Schuman, Inc., New York.

Transactions of the American Proctologic Society combined with the Section of Proctology of the Royal Society of Medicine of England, published by the Society.

Pioneer Doctor, Moorman, University of Oklahoma Press, Norman, Okla.

1950 Year Book of Orthopedics and Traumatic Surgery, Compere (editor); *1950 Year Book of General Surgery,* Graham (editor); *1950 Year Book of Obstetrics and Gynecology,* Greenhill (editor); *1950 Year Book of Medicine,* Beeson (editor); *1950 Year Book of Pediatrics,* Poncher and Richmond (editors); *1950 Year Book of Radiology,* Hodges and others (editors); *1950 Year Book of Eye, Ear, Nose, and Throat,* Vail and Crowe (editors); *1950 Year Book of Drug Therapy,* Beckman (editor); *1950 Year Book of Urology,* Scott (editor), Year Book Publishers, Chicago.

Collected Studies from the City of Chicago Municipal Tuberculosis Sanitarium, City of Chicago.

SUMMARY OF SERVICE

Local users, 57.	Borrowers by mail, 57.
Local packages, 23.	Packages mailed, 59.
Items borrowed, 417.	Film borrowers, 91.

Films loaned, 69.

MOTION PICTURE FILM LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in color, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films in the hands of the borrower.

Request for films should be addressed to "Motion Picture Film Library, State Medical Association of Texas, 700 Guadalupe Street, Austin, Texas." A list of available films, with descriptions, will be furnished on request.

The following films were loaned by the Library during the month of March:

Accent on Use (National Foundation for Infantile Paralysis)—Jacksonville High School, Jacksonville; Nan Travis Hospital, Jacksonville; and Scott and White Memorial Hospitals School of Nursing, Temple.

Aids in Muscle Training (American Medical Association)—Dr. William V. Cruce, Houston.

Analgesia, Continuous Caudal (Becton, Dickinson and Company)—Scott and White Memorial Hospitals School of Nursing, Temple.

Anesthesia, Novocain, in Obstetrics (Winthrop Chemical Corporation)—Drs. Dow and Koberg, Seminole.

Anesthesia, Regional (Winthrop Chemical Corporation)—Dr. William V. Cruce, Houston.

Anesthesia with Vinethene (Merck and Company)—Wichita Falls Clinic-Hospital, Wichita Falls.

Anoxia, Physiology of (Linde Air Products)—Harris County Medical Society, Houston.

Appendicitis in Childhood (Mead Johnson)—Dr. George B. Cunningham, Uvalde.

As Others See Us (American Hospital Association)—Sewell Hospital, Belton.

Be Your Age (Metropolitan Life Insurance Company)—Brenham Rotary Club, Brenham.

Behind the Shadows (Texas Tuberculosis Association)—Jacksonville High School, Jacksonville, and Nan Travis Hospital, Jacksonville.

Blood Transfusion, Technique of (Mead Johnson)—Scott and White Memorial Hospitals, Temple.

Breast Plastic: One-Stage Operation for Pendulous Breasts (Philip Thorek, M. D.)—Dr. B. L. Burditt, Del Rio, and Johns Clinic and Hospital, Taylor.

Breast Self-Examination for Women (American Cancer Society)—Sewell Hospital, Belton.

Breech Extraction with Forceps (Mead Johnson)—Obstetrical Staff, Shannon Hospital, San Angelo.

Cancer: The Problem of Early Diagnosis (American Cancer Society)—Alpha Epsilon Delta, University of Texas, Austin.

Cervical Smears (Karl John Karnaky, M. D.)—Milam County Medical Society, Cameron.

Cesarean Section, Low Cervical (Mead Johnson)—Drs. Dow and Koberg, Seminole.

Cholecystectomy (Mead Johnson) — Dr. William V. Cruce, Houston.

Choose to Live (American Cancer Society)—Gonzales High School, Gonzales.

Coming Home (Texas Tuberculosis Association)—Scott and White Memorial Hospitals School of Nursing, Temple, and the Frio County Tuberculosis Association, Pearsall.

Conquering Darkness (Hurst Eye, Ear, and Throat Clinic)—Johns Clinic and Hospital School of Nursing, Taylor.

Diphtheria and Croup (Lederle Laboratories)—Dr. William V. Cruce, Houston, and Memorial Hospital School of Nursing, Houston.

Dysmenorrhea, Primary (G. D. Searle and Company)—Dr. William V. Cruce, Houston.

Eyes for Tomorrow (Hurst Eye, Ear, and Throat Clinic)—Nan Travis Hospital, Jacksonville; Jacksonville High School, Jacksonville; and Johns Clinic and Hospital School of Nursing, Taylor.

Feeding the Infant During the First Year (Mead Johnson)—Gonzales High School, Gonzales.

Folvite in the Treatment of the Anemias (Lederle Laboratories)—Scott and White Memorial Hospitals School of Nursing, Temple.

Forty Billion Enemies (Westinghouse Electric and Manufacturing Company)—Jacksonville High School, Jacksonville, and Nan Travis Hospital, Jacksonville.

From Moo to You (Borden Company)—Dr. George B. Cunningham, Uvalde.

Gastrectomy, Safer (Billy Burke Productions)—Sewell Hospital, Belton.

Gastro-Intestinal Cancer: The Problem of Early Diagnosis (American Cancer Society)—College of Pharmacy, University of Texas, Austin, and Dr. B. L. Burditt, Del Rio.

Goodbye Mr. Germ (Texas Tuberculosis Association)—Jacksonville Public School System, Jacksonville, and Nan Travis Hospital, Jacksonville.

Hemicolectomy for Carcinoma of the Right Side of the Colon (Philip Thorek, M. D.)—Dr. B. L. Burditt, Del Rio, and Wichita Falls Clinic-Hospital, Wichita Falls.

Hepatitis, Observation on (Mead Johnson)—Dr. William V. Cruce, Houston.

Here's Health the American Way (American Medical Association)—Dr. Dan E. Bruhl, Houston.

Hidden Hunger (Swift and Company) — Jacksonville High School, Jacksonville, and Nan Travis Hospital, Jacksonville.

Human Sterility (Winthrop Chemical Corporation)—Johns Clinic and Hospital, Taylor.

Hypodermic Syringes and Needles: Their Care and Function (Becton, Dickinson and Company)—Veterans Administration Hospital, Kerrville.

Immunization Against Infectious Diseases (Lederle Laboratories)—Memorial Hospital School of Nursing, Houston, and Tahoka Hospital and Clinic, Tahoka.

Injuries, Athletic, Care and Prevention (Becton, Dickinson and Company)—Seminole Athletic Association, Seminole.

Lesions of Vulva, Vagina and Cervix (Karl John Karnaky, M. D.)—Rio Grande Valley Obstetrical and Gynecological Society, Raymondville.

Magic Bullets (United States Public Health Service)—Gonzales High School, Gonzales.

Malaria (British Information Services)—University of Houston, Houston, and Nan Travis Hospital, Jacksonville.

Management of the Failing Heart (Varick Pharmacal Company)—Dr. George B. Cunningham, Uvalde.

Modern Nutrition (E. R. Squibb and Company)—Dr. B. L. Burditt, Del Rio.

New Horizons (National Foundation for Infantile Paralysis)—Nan Travis Hospital, Jacksonville.

Normal Delivery (Mead Johnson)—Scott and White Memorial Hospitals School of Nursing, Temple, and School of Social Work, University of Texas, Austin.

Nutrition in Wound Healing (California Fruit Growers)—St. John's Hospital Staff, San Angelo.

Obstructive Laryngitis (Mead Johnson)—Tahoka Hospital, Tahoka.

On Our Own (National Foundation for Infantile Paralysis)—Nan Travis Hospital, Jacksonville; Jacksonville High School, Jacksonville; and Progressive Study Club, Kenedy.

Plain Facts (American Social Hygiene Association)—Gonzales High School, Gonzales.

Polio—Diagnosis and Management (British Information Services)—Dr. B. L. Burditt, Del Rio.

Post-Poliomyelitis Paralysis, Operative Procedures (National Foundation for Infantile Paralysis)—Brackenridge Hospital School of Nursing, Austin.

Pregnancy, Multiple (Mead Johnson)—Scott and White Memorial Hospitals School of Nursing, Temple.

Problem Child (Pet Milk Company)—Gonzales High School, Gonzales, and Brackenridge Hospital School of Nursing, Austin.

Proof of the Pudding (Metropolitan Life Insurance Company)—Dr. George B. Cunningham, Uvalde.

Scabies (British Information Services) — Austin State School, Austin.

Scarlet Fever (Lederle Laboratories, Inc.) — Memorial Hospital School of Nursing, Houston.

Spontaneous Delivery (Mead Johnson)—Scott and White Memorial Hospitals School of Nursing, Temple.

Stitch in Time, A (American Medical Association)—San Antonio Health Department, San Antonio.

They Also Serve (American Medical Association)—District 5, Texas Graduate Nurses Association, Austin; Austin-Waller County Medical Society, Hempstead; Fortnighter's Club, Hempstead; and Unitarian Church, Hempstead.

Time Is Life (American Cancer Society)—Dr. George B. Cunningham, Uvalde.

Traitor Within (American Cancer Society)—Gonzales High School, Gonzales.

Varicose Veins and Their Complications (Becton, Dickinson and Company)—Dr. George B. Cunningham, Uvalde.

Varicose Veins, Treatment of (G. D. Searle and Company)—Dr. George B. Cunningham, Uvalde.

Vitamins and Some Deficiency Diseases (Lederle Laboratories)—Scott and White Memorial Hospitals School of Nursing, Temple.

What Is Cancer? (American Cancer Society)—St. Joseph's Hospital School of Nursing, Houston.

When Bobby Goes to School (Mead Johnson)—Parent-Teacher Association, Fulton School, Cleburne.

You Can Help (Texas Tuberculosis Association)—Dr. George B. Cunningham, Uvalde.

BOOK NOTICES

[1]Cranioplasty

David L. Reeves, M. D., Consultant in Neurological Surgery, Santa Barbara Cottage Hospital, Saint Francis Hospital, Santa Barbara General Hospital, Santa Barbara, Calif. Cloth, 118 pages. $3. Springfield, Ill., Charles C. Thomas, 1950.

This monograph is a concise summary of the art of cranioplasty. The historic review is interesting and is followed by a brief discussion of the various materials employed in cranioplasty. Operative procedures are described and are illustrated by pictures and case presentations.

Possibly the most valuable feature of the book is the extensive bibliography (402 references) which is divided under definite headings for easy reference.

[2]A Text-Book of X-Ray Diagnosis, Volume IV

By British Authors. Edited by S. Cochrane Shanks, M. D., F.R.C.P., F.F.R., Director, X-Ray Diagnostic Department, University College Hospital, London; and Peter Kerley, M. D., F.R.C.P., F.F.R., D.M.R.E., Director, X-Ray Department, Westminster Hospital, and Radiologist, Royal Chest Hospital, London. 2nd edition. Cloth, 592 pages. $15. Philadelphia, W. B. Saunders, 1950.

This book is now published in four volumes: I Central Nervous System, II Cardio-Vascular and Respiratory Systems, III The Alimentary Tract, and IV The Bones and Joints and Soft Tissues.

The organization, format, illustrations and complete bibliography of volume IV immediately convey the experience and thoroughness of the editors and various contributors. The enamel surface paper, the Century style type, and numerous (553) illustrations make it easy to read. It will make a good addition to any physician's library.

This book is divided into eleven parts:

Normal Bones and Joints.—A concise and comprehensive review of normal anatomy, accessory ossicles, and ossification tables is presented.

General Pathology of Bone.—This part is the most valuable and it alone is worth the price of the volume. The known facts of bone growth both of membranous (woven) and cartilagenous (lamellar) bone are presented. The effects of mechanical stress, infection, interruption of blood supply, and tumors on local absorption and formation of new bone are clearly described.

Congenital Deformities of Bones and Joints.—The well-known deformities of the spine, pelvis, and extremities are described and illustrated with radiographs.

Traumatic Lesions of Bones and Joints.—The principle of securing adequate films of fractures and always including the nearest joint space is emphasized again. All common fractures are illustrated and described.

Inflammatory Diseases of Bones and Joints.—All of the common infections are discussed, but the section on tuberculosis is the most informative. The illustrations of various syphilitic lesions of bone are excellent.

Osteochondritis.—These changes are due to traumatic or vascular occlusion of blood vessels followed by ischemia.

Static and Paralytic Lesions.—Well-known conditions are again described.

Constitutional Diseases of Bones and Joints.—Rickets and scurvy are fully covered. Endocrine changes, blood dyscrasias, and malignancies affecting bones are reviewed.

Tumors and Cysts.—Common tumors, both benign and malignant, are well described.

Soft Tissues.—Good references are given on soft tissue technique. The etiology of gas in soft tissue is discussed with excellent demonstration of appearance of gas in the leg.

Localization of Foreign Bodies.—The basic principles of the various foreign body localization methods are presented in such a manner as to be useful for a quick reference.

[3]The Prostate Gland

Herbert R. Kenyon, M. D., Associate Clinical Professor, Department of Urology, New York University, Bellevue Medical Center. Cloth, 194 pages. $2.95. New York, Random House, 1950.

This small volume on the prostate gland is one of the best to appear so far. It is written especially for the layman and as the author states, any literate layman can easily understand it.

Sexual difficulties are described satisfactorily, and the difference between the functional causes and organic causes are shown well. The functional sexual difficulties are shown in the proper perspective and as constituting the major proportion of cases.

The book contains a good description of the various types of prostatic enlargements and the treatment thereof.

The statement is made that perineal prostatectomy is the only method for radical removal of the prostate for malignant disease. This statement overlooks the well established radical retropubic prostatectomy, which possibly has a lower incidence of postoperative incontinence.

[4]Principles of Internal Medicine

T. R. Harrison, Editor-in-Chief. Cloth, 1,590 pages. $12. Philadelphia, Blakiston Company, 1950.

This text for students and practitioners is organized according to the modern physiologic approach to internal diseases. The first part contains excellent discussions of such manifestations as pain, dyspnea, jaundice, edema, and anemia. The physiologic aspects of fluid balance, metabolism, and electro-physiology are set forth in Part 2. Bodily reaction to injury and infection and the principles of immunology are considered in Part 3. Other sections are devoted to metabolic and nutritional diseases, endocrine disorders, infectious diseases, and diseases of various organ systems.

The various sections are well written and include adequate outlines of the important features of each disease. Each sec-

[1]*M. A. Treadwell, M. D., Fort Hood.*
[2]*G. G. Zedler, M. D., Austin.*
[3]*R. G. Carter, M. D., Austin.*
[4]*George M. Decherd, Jr., M. D., Austin.*

tion is followed by a bibliography which includes recent papers, and the index is extensive and complete.

This text may be recommended highly to all students of internal medicine.

[5]The Esophagus and Pharynx in Action—A Study of Structure in Relation to Function

William Lerche, M. D., F.A.C.S., Founder Member and Honorary Member of the American Association for Thoracic Surgery. 1st edition. Fabrikoid, 222 pages. $5.50. Springfield, Ill., Charles C. Thomas, 1950.

This is a fascinating and painstaking work. The subject matter is based on the study of a wealth of material—more than 200 esophagi—the author has been able to collect. Both the pharynx and the esophagus, particularly the esophagus, have been described minutely. For the first time a thorough study of the action of the esophagus and pharynx has been made and explained briefly and concisely. The anatomy of the esophagus is described in a way that makes it possible for the reader to understand clearly the structural features of this important portion of the gastrointestinal tract. The chapters on this particular study are the most valuable and interesting of the volume.

Excellent photography of specimens and descriptive drawing help to clarify the subject matter. Although this book will not be of particular interest and value to the medical profession as a whole, it is of inestimable value and interest to the physiologist, the anatomist, and above all the thoracic surgeon. It is not likely that a work of equal magnitude will be undertaken again soon.

[6]Post-Graduate Lectures on Orthopedic Diagnosis and Indications, Volume I

Arthur Steindler, M. D., F.A.C.S., Professor of Orthopedic Surgery, State University of Iowa, Iowa City. Cloth, 289 pages. $7.50. Springfield, Ill., Charles C. Thomas, 1950.

This is a series of postgraduate lectures on orthopedic diagnosis and indications. The author expects the reader to have a thorough knowledge of the subjects, and he has packed a lot of information in a few words.

Section A deals with propedeutics in orthopedic diagnosis and section B with congenital deformities and disabilities.

The explanation and illustration of body equilibrium in the first section is thorough, practical, and easily comprehended. An orientation of joint position and ranges of motion at joints is admirable from a standpoint of physics and is thorough to the point of complexity. The division on contractures is a thorough, practical dissertation, easily comprehended, and clinical application of principles are made. One lecture is a valuable interpretation of pain, which is analyzed concerning its various qualities; the clinical application is practical. A discussion on the pathology of the gait is in detail and is complex.

In the second section the lecture on the pathogenesis of congenital deformities of the locomotor system is a brief discussion of theories. Congenital deformities due to disturbances of bone growth are covered in detail, and congenital deformities of the spine and thorax are treated in a concise but thorough, comprehensive dissertation on congenital talipes. A lecture on congenital defects and malformations of the long bones of the lower extremities deals briefly with etiology, pathology, and treatment of defects of the fibula, tibia, and femur and of pseudarthroses of the tibia. A complete discussion of congenital dislocation of the hip in all of its aspects is presented and congenital deformities of the upper extremity are covered in a complete consideration of the normal embryologic development of the upper extremity.

The author has given generous recognition to all authors who have written on the subjects discussed and a complete bibliography is given at the end of each lecture.

[7]Psychology—Principles and Applications

Marian East Madigan, Ph. D., Specialist, Research Department, Milwaukee Vocational and Adult Schools; Visiting Professor, Summer Sessions, University of Arizona, Educational Measurement and Guidance. Cloth, 403 pages. $4.25. St. Louis, C. V. Mosby Company, 1950.

The title of this book is somewhat misleading. After the reader gets through the first few chapters, he finds that the book has been written for student nurses. The author attempts to show how psychologic principles aid the student both in utilization of her own time and in understanding the needs of the patient she attends. She attempts to show that the patient has psychologic needs which must be taken into consideration for nursing to be better.

The last half of the book becomes somewhat complex in that it attempts to include too wide a scope. The book itself covers too much territory. The book is illustrated with interesting plates and contains graphs and charts which help make it more easily understandable. At the end of each chapter are questions outlining the material taken up in that chapter. Although the book quotes liberally from other works, there is no bibliography.

The book is written for student nurses and will fill that particular need. It is not recommended as a reference book nor will it be of interest to the average practicing physician.

[8]Enzymes, Growth and Cancer

Van R. Potter, Ph. D., Professor of Oncology, University of Wisconsin Medical School, Madison. Fabrikoid, 64 pages. $1.85. Springfield, Ill., Charles C. Thomas, 1950.

This small monograph is taken from "American Lectures in Physiology." The author, to advance his theory of cancer, takes a considerable portion of the monograph to develop five premises on enzymology as a necessary antecedent to the comprehension of the later postulation. The theory is elaborated in a discussion of the organization of enzymes. The belief is expressed and supported with reasonable evidence based on observations that the changes in behavior observed in cancer cells are due to the loss of one or several strategic enzymes the loss of which could produce the phenomenon of uncontrolled growth. Specific evidences for the adoption of this view are cited with a discussion of the possible mechanism whereby this change is produced. At present the author favors the theory that the deficient enzyme is catabolic, as his work and that of Warburg indicated that cancer cells are lacking in some enzyme involved in the aerobic metabolism of pyruvic acid.

The routes of investigation are discussed and that on chemotherapy is particularly interesting. The reviewer's background does not permit a critical analysis of much that is written. The author is sanguine about the future of chemotherapy in cancer and is hopeful that studies and advances in enzymology will provide a background of knowledge for more rapid progress in this field, while admitting that nearly all past initial achievements have been the result of the fruitful pursuit of chance observation rather than a reasoned approach.

The book is clearly written and concise. The minimum that can be gained by reading the volume is an appreciation of the almost infinite complexity of intracellular physiology as our present scanty knowledge reveals it.

[5]*James W. Nixon, M. D., San Antonio.*
[6]*Frank C. Hodges, M. D., Abilene.*
[7]*Paul J. Walter, M. D., Houston.*
[8]*H. F. Heslington, M. D., El Paso.*

ORGANIZATION SECTION

COLOR TELEVISION AT WORK FOR MEDICAL SCIENCE

When color television makes its second visit in as many years to the State Medical Association of Texas, it will team up with another recent development to offer physicians an especially stimulating and provocative program. Civil defense, which lately has come to the forefront of physicians' thinking for the uncertain days ahead, will be given fifty minutes on the television show at the Association's annual session in Galveston. From 4:10 to 5 p. m. on Monday, April 30, the health services of civil defense and methods of defense against special weapons will be reviewed for physicians fortunate enough to occupy seats in the Television Theaters on the Pleasure Pier. These theaters, originally planned for the Exhibit Hall of the Pier, will be housed instead in the Snack Bar and Dancing Studio buildings at the entrance to the Exhibit Hall.

Col. W. L. Wilson, director of health services for the Federal Civil Defense Administration, Washington, D. C., will discuss the philosophy and plan of health services of civil defense. Dr. Ralph Clayton, Dallas, will cover defense against atomic warfare; S. Edward Sulkin, Ph. D., Dallas, defense against biologic warfare; Chauncey D. Leake, Ph. D., Galveston, defense against chemical warfare; and Dr. Ozro T. Woods, Dallas, defense against psychologic warfare and the responsibility of the individual physician in civil defense. Dr. Woods, chairman of the Committee on Civil Defense of the Association, is responsible for planning this part of the television program.

An outline of the entire program to be telecast from St. Mary's Infirmary the afternoons of Monday and Tuesday, April 30 and May 1, and the morning of Wednesday, May 2, was printed in the March issue of the JOURNAL. This program has been modified slightly, and the revised program is printed herewith. If suitable patients are not available at the time of the annual session, it may be necessary to revise the program again, but Dr. Robert M. Moore, Galveston, chairman of the Committee on Television, has promised a fast-moving series of presentations designed to appeal to general practitioners and specialists alike.

The program as now planned is as follows:

Monday, April 30

1:00 p. m. to 5:00 p. m.

1. (1:00) *Hemorrhoidectomy, Demonstration and Operation.* CURTICE ROSSER, Dallas.
2. (1:55) *Prolapse of Uterus, Cystocele, and Rectocele.* WILLARD R. COOKE, Galveston.
   (2:45) *Intermission.*
3. (3:05) *The Coxsackie Viruses; Properties, Immunological Aspects, and Possible Relation to Poliomyelitis and Other Disease Conditions.* S. EDWARD SULKIN, Ph. D., and THOMAS W. FARMER, Dallas.
4. (3:25) *Demonstration in Artificial Respiration—the Rocking Bed.* JACK HILD, Houston.
5. (3:40) *Differential Diagnosis of Senile Keratoses and Seborrheic Keratoses.* W. F. SPILLER and E. B. RITCHIE, Galveston.
6. (3:55) *Differential Diagnosis of Foot and Hand Eruptions.* C. S. LIVINGOOD, Galveston.
7. (4:10) *Civil Defense: Health Services and Special Weapon Defense.* OZRO T. WOODS, Dallas, Chairman, Committee on Civil Defense.

Tuesday, May 1

1:00 p. m. to 5:00 p. m.

8. (1:00) *Internal Fixation of a Fracture.* G. W. N. EGGERS, Galveston.
9. (1:55) *Sliding Method of Intracapsular Cataract Extraction.* C. S. SYKES, Galveston.
10. (2:30) *Cholecystectomy.* W. W. STEPHEN, Galveston.
    (3:20) *Intermission.*
11. (3:40) *Clinical Demonstration of a Psychiatric Problem.* WILLIAM SHANAHAN, Galveston.
12. (4:05) *A Phrenic Nerve Stimulator.* MARION JENKINS, Dallas.
13. (4:25) *Treatment of Empyema and Traumatic Hemothorax with Streptokinase-Strepdodornase.* OSCAR CREECH, Houston.
14. (4:45) *Roentgenologic Demonstration of the Position of Needles and Injected Materials During Therapeutic and Diagnostic Nerve Blocks.* F. A. DUNCAN ALEXANDER, McKinney.

Wednesday, May 2

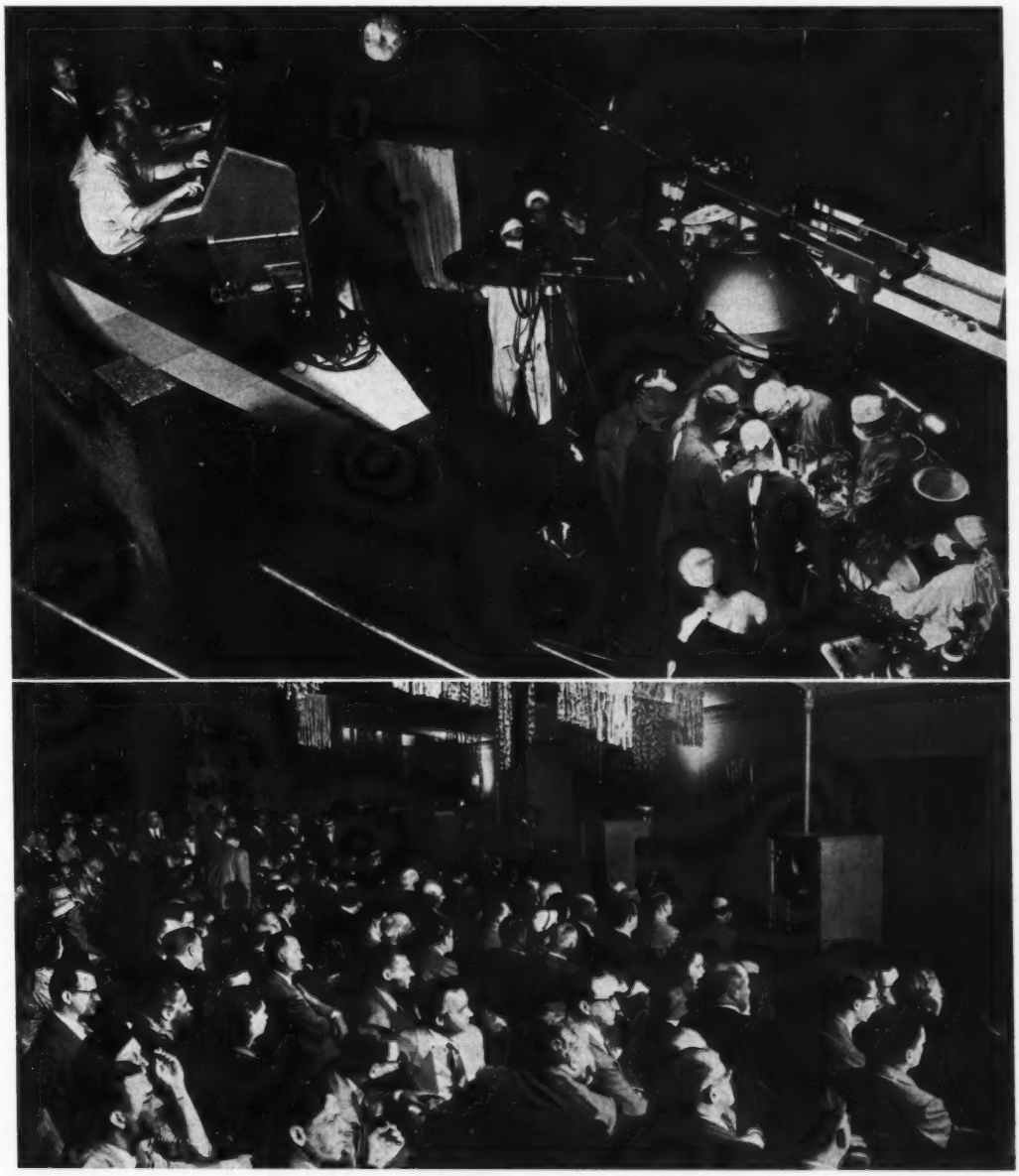
9:00 a. m. to 12:00 noon

15. ((9:00) *Herniorrhaphy.* TERRELL SPEED and P. M. RAMEY, Temple.
16. (9:50) *Lobectomy.* ROBERT R. SHAW, Dallas.
17. (10:45) *Intestinal Plication.* E. J. POTH, Galveston.
    (11:15) *Intermission.*
18. (11:30) *Demonstration of Gross Pathologic Specimens.* JOHN H. CHILDERS, Galveston.
19. (11:45) *Treatment of Fracture of Forearm with Graft.* LOUIS LEVY, Fort Worth.

The color television program will be the twenty-third such demonstration of color television as a medical teaching aid. The first exhibition was presented for the American Medical Association in June, 1949, and Texas physicians had an opportunity to see a demonstration at their annual session in Fort Worth last year. All of the 503 separate medical clinics and surgical operations shown to a total audience of 137,000 in medical society meetings from coast to coast have been directed and sponsored by Smith, Kline, and French Laboratories of Philadelphia as a service to the medical profession. A special committee of the State Medical Association of Texas has cooperated with the sponsors in the preparation of the Texas programs.

The equipment used in the Smith, Kline, and French demonstration programs was designed and built to order by the Engineering Development and Research Department of the Columbia Broadcasting System. Smith, Kline, and French owns and operates the equipment, which consists of a camera, two monitoring consoles, transmitter, and twenty special color receivers; color disks are used to produce color images in the "field sequential" type apparatus.

The value of color television as a teaching medium in medicine was demonstrated at a recent seminar held at Wayne University College of Medicine, Detroit. The two day program, designed especially for general practitioners, was presented almost exclusively by color television. After the meeting, Wayne University sent questionnaires to 550 physicians who had been present, requesting their opinion as to the value and effectiveness of the meeting. Fifty-nine per cent of those addressed replied. Of those replying, 96 per cent of the physicians thought color television viewing of surgery better than viewing surgery from an amphitheater seat, primarily because of the better visibility. Eighty-five per cent of them thought the color television presentations of medical clinics preferable to conventional papers read at most medical meetings, principally because television enables the audience to see the cases discussed.



Color television at work for medical science. In the operating scene above, the color camera is poised in the center background only a few feet over the patient. To the left is the monitoring equipment, where colors are checked for fidelity, where the voice of the surgeon is monitored as it is transmitted from his mask microphone to the unseen audience, and where the television coordinator sits. These men are watching on a screen in the console the same picture that is being received by the large audience some miles away which is shown below. The intense interest evident in the faces of the physicians viewing the "colorcast" is typical of medical audiences which find the microwave transmission of detailed information a helpful adjunct to conventional methods of medical education.

Enthusiasm for color television as a teaching device is shared by members of the Council on Scientific Work of the State Medical Association of Texas and other officials of the organization responsible for planning the annual session program. They welcomed the opportunity to present again this year the Smith, Kline, and French unit, by means of which physicians from throughout Texas can share the detailed view of surgical operations and medical clinics which are usually reserved for the surgical and medical teams attending the patient. They strongly recommend that each physician who comes to Galveston for the annual session spend a significant period in the Television Theaters where this new medium of communication will be at work for medical science.

HOTEL DEPOSITS NECESSARY

Physicians who have not sent a $5 deposit per day per room may find that they do not have a reservation for the annual session. Dr. E. S. McLarty, chairman of the Hotels Committee, reminds members of the Association that as soon as they receive a confirmation they should mail back to him the deposit, which is primarily to allow the committee to use the available rooms to best advantage for the comfort and convenience of guests.

Dr. McLarty and other officials of the Association are anxious that physicians and their wives check immediately to be sure that necessary hotel accommodations are reserved well in advance. The main session will be held May 1-2 with a meeting of the House of Delegates on April 29 and meetings of related organizations on April 30.

Deposits will be refunded to all physicians who are called into military service or who must meet any other serious emergency. Others who wish the deposit returned must give notice to the hotel at least seventy-two hours prior to the meeting.

All hotel reservations should be made through Dr. McLarty, 202 Medical Building, Galveston.

PLANS FOR 1952 ANNUAL SESSION

Members of the State Medical Association can play a large part in improving future annual sessions, and their suggestions will be welcomed by the Council on Scientific Work.

Each registrant is urged to submit to the Information Bureau the following data which will aid in preparation of the 1952 annual session program:

1. In order of preference, his choice of out-of-state guest speakers for the session.

2. At least five subjects on which he would like to hear papers read.

3. Any suggestions or criticisms he might care to make concerning the conduct of, or arrangements for, the annual session.

COUNTY SOCIETIES

Angelina County Society

February 12, 1951

(Reported by Bernard Hyman, Secretary)

Benign Tumors of the Breast—L. L. D. Tuttle, Houston.
Demonstration of Sections of Breast Tumors—Harbert Davenport, Jr., Jacksonville.

The Angelina County Medical Society met February 12 in Lufkin with fifteen members and three guests present. Speakers were Drs. Tuttle of Baylor University and Harbert Davenport, Jr., of the Travis Clinic.

Baylor-Knox-Haskell Counties Society

January 16, 1951

J. R. Reagan, Wichita Falls, spoke to members of the Baylor-Knox-Haskell Counties Medical Society at the January 16 meeting held in the offices of R. L. Newsom, Munday.

Bell County Society

February 7, 1951

(Reported by E. R. Veirs, Secretary)

Clinical Observations on the Incidence of Homologous Serum Hepatitis Following Ultraviolet Irradiated Plasma and Blood Transfusions—Ralph G. Greenlee, Temple.
Carcinoma of the Gastro-Intestinal Tract (motion picture).

Applications for membership in the Bell County Medical Society were approved for Gerald E. Brandes, Jesse D. Ibarra, Jr., Philip S. Kline, and Sherman B. Lindsey at the society's meeting February 7 at Temple Country Club. A letter of transfer of Charles H. Miller, Killeen, from the Dallas County Society was presented and approved.

A committee composed of W. O. Arnold, chairman, J. B. Brown, and R. R. Curtis was appointed to work with the State Medical Association Committee on Tuberculosis in its program designed to assist in control of tuberculosis through early detection and treatment and through cooperation with local county health officers.

Brooks-Duval-Jim Wells Counties Society

January 11, 1951

Cancer of the Breast—C. F. Crain and W. H. Newkirk, Alice.

P. S. Joseph was elected president of Brooks-Duval-Jim Wells Counties Medical Society at its January meeting in Alice. Other officers elected were W. H. Newkirk, vice president; G. G. Wyche, Jr., secretary-treasurer; and Murphy Allison, delegate. Members of the board of censors include C. L. Behrns, C. F. Crain, and John H. Strickland, all of Alice.

The above scientific program was given and movies shown.

Camp County Society

January 31, 1951

Five members of the Camp County Medical Society were entertained at a dinner January 31 given by Mrs. P. A. Reitz in Pittsburg.

Colorado-Fayette Counties Society

February 27, 1951

Surgical Treatment of Chest Diseases—A. W. Harrison, Galveston.
Diagnosis and Treatment of Fever in Children—T. C. Panos, Galveston.

At the February business meeting of the Colorado-Fayette Counties Medical Society in Columbus the society voted to approve establishment by the Red Cross of a branch of the reigonal blood program. Scientific papers were presented on the above subjects. Dr. Harrison, assistant professor of thoracic surgery at the University of Texas Medical Branch, illustrated his talk with slides. Dr. Panos is professor of pediatrics at the Medical Branch.

Cooke County Society

February 27, 1951

(Reported by T. S. Myrick, Secretary)

Newer Concepts of Gallbladder Disease—Andrew Small, Dallas.

At the business meeting of the Cooke County Medical Society held February 27 in Muenster, the society gave a unanimous vote of approval to the Sweeney Diabetic Foundation. It was decided to incorporate the society.

Preceding the meeting dinner was served by the home economics class to members of the society, and their wives and three dentists and their wives, guests for the occasion. Andrew Small, Dallas, spoke on the above subject.

Dallas County Society

February 13, 1951

(Reported by W. W. Fowler, Secretary)

Epilepsy and Convulsive Disorders in Children—Gilbert B. Forbes, Dallas.

A special election to fill the positions of secretary, treasurer, and four members of the board of directors was held at the February 13 meeting of the Dallas County Medical Society in the auditorium of Baylor University Hospital. W. W. Fowler was elected secretary; J. B. Howell, treasurer; David W. Carter, Jr., and Robert F. Short, members of the board of directors for one year terms; and R. G. Carpenter and Edward White, board members for two year terms.

Gilbert B. Forbes, professor of pediatrics, Southwestern Medical School, presented the above scientific program.

Everett Fox, chairman, committee on medical economics, made a report of a survey of indigent medical care in Dallas for 1949. Upon the recommendation of the board of directors Horace V. Copeland and Malcolm K. McCullough were nominated for honorary membership in the State Medical Association. A resolution regarding the death of Dr. Rice Jackson was read and adopted.

Applicants who were accepted to membership included John Philip Fischer, Gilbert B. Forbes, Nathan Kleban, Forrest Edward Lumpkin, Jr., Wayne Reeser, Ralph S. Clayton, Marion F. Graham, J. Bruce Edwards, Dale Franklin Johnson, Morris E. Magers, and Louis Tobian, Jr.

Charles L. Martin, president, presided and Floyd Norman introduced the speaker.

Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Society

February 15, 1951

A tour of the Veterans Administration hospital, a dinner, and regular business session were held at the February 15 meeting in Big Spring of the Ector-Midland-Martin-Howard-Andrews-Glasscock Counties Medical Society.

Medical case presentations were given by W. B. Johnson, Everett Fausel, and Edward T. Driscoll, staff members. Dinner was served to fifty-three members, hospital staff men, and their wives.

Ellis County Society

January 10, 1951

W. P. McCall, Ennis, was elected president of the Ellis County Medical Society on January 12 in Waxahachie. Other officers are Ted Estes, Waxahachie, vice president, and W. P. Ball, Jr., Waxahachie, secretary-treasurer.

Galveston County Society

January 27, 1951

Entertaining for their wives, members of the Galveston County Society were hosts at a dinner-dance January 27 in Galveston. A buffet dinner was served. Arrangements were under the direction of Mesdames Herman Weinert, Jr., Albert O. Singleton, Jr., Hamilton Ford, and E. Hoskins Stirling.

Out-of-town guests were Dr. and Mrs. Michael DeBakey, Dr. and Mrs. John Howard, all of Houston; Dr. May Owen, Fort Worth; and Dr. I. S. Ravdin, Philadelphia.

February 7, 1951

Difference Between Actual Illness and Illness Brought on by the Mind—Harry Solomon, Boston.

Harry Solomon, professor of psychiatry at Harvard University and director of the Boston Psychopathic Hospital, spoke on the above subject to sixty-nine members and twenty-two guests of the Galveston County Medical Society in Galveston on February 7. Hamilton Ford, president, introduced the speaker and guests.

Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson Counties Society

February 20, 1951

Diagnosis and Methods of Treatment of the Arthritides—William K. Ishmael, Oklahoma City.

ACTH, Cortisone, and Testosterone—A. A. Hellbaum, Oklahoma City.

Ruptured Intervertebral Disk and Its Management—E. D. McBride, Oklahoma City.

Frank W. Kelley was appointed public relations chairman at the February 20 meeting in Borger of the Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson Counties Medical Society. R. W. Bagwell and P. C. Christian will serve with Dr. Kelley. A cancer committee composed of M. M. Stephens, M. C. Overton, Jr., H. E. Nicholson, Sr., R. A. Snyder, D. B. Pearson, R. L. Kleeberger, and J. J. Davis was appointed.

Gregg County Society

January 9, 1951

Tom Barr and Sidney Galt, both of Dallas, were guest speakers at the regular meeting of the Gregg County Medical Society held in Gladewater on January 9. A round-table discussion was held after the program. Approximately sixteen doctors were present.

Hamilton County Society

February 5, 1951

(Reported by H. V. Hedges, Secretary)

William F. Hafer and Homer V. Hedges, both of Hico, were elected to serve in 1951 as president and secretary-treasurer respectively at the February 5 meeting of the Hamilton County Medical Association. H. Haefer, also of Hico, was chosen delegate.

Hidalgo-Starr Counties Society

March 8, 1951

Value of Proteins in Surgery—E. R. Crews, San Antonio.

Diagnosis and Treatment of Carcinoma of the Colon—Philip S. Kline, San Antonio.

The above scientific program was presented at the monthly meeting of the Hidalgo-Starr Counties Medical Society on March 8 in Donna.

Lubbock-Crosby Counties Society

March 6, 1951

(Reported by John B. Rountree, Jr., Secretary)

Cervicitis—Etiology, Diagnosis, and Treatment (motion picture).

F. B. Malone, Lubbock, reported on motion picture films of the American Cancer Society at a meeting March 6 of the Lubbock-Crosby Counties Medical Society in Lubbock. Dr. Malone pointed out the necessity for the society to approve the showing of the film, "Breast Self-Examination," and a motion was made that the film be approved. James T. Hall, Lubbock, reviewed the Selective Service regulations as applied to reserve commissioned officers and discussed a new directory from the Army regarding reserves in the Armed Forces. He introduced for discussion the possibility of establishing a troop basis unit.

A motion was made by Clyde F. Elkins, Jr., Lubbock, to approve the mobile unit of the Tuberculosis Association to be placed in Lubbock and Crosby Counties in the fall. Allen T. Stewart, Lubbock, discussed the possible change in the constitution of the Panhandle District Medical Society to provide for one yearly meeting to be held in the spring alternating between Lubbock and Amarillo. The Doctors' Plan Insurance was discussed. The above scientific movie was shown.

McLennan County Society

February 12, 1951

Treatment of Burns—G. W. Berry, Waco.
Atomic Warfare—W. M. Avent, Waco.
Red Cross Blood Bank—Tom Oliver, Waco.

The three above named scientific papers were presented at the meeting of McLennan County Medical Society in Waco, February 12.

Nueces County Society

January, 1951

Col. John W. Simpson, chief of the obstetrical and gynecology service at Brooke General Hospital, Fort Sam Houston, and Lt. Col. William E. Berry, of the radiology department of Brooke General Hospital, were guest speakers at a January meeting of the Nueces County Medical Society in Corpus Christi.

Reeves-Ward-Winkler-Loving-Culberson-Hudspeth Counties Society

February 15, 1951

Massive Gastro-Intestinal Hemorrhage from Peptic Ulcer—Harold Lindley, Pecos.
Tetanus in the New-Born Baby—Malcolm C. Maley, Pecos.

Members of the Reeves-Ward-Winkler-Loving-Culberson-Hudspeth Counties Medical Society met February 15 with members of the Woman's Auxiliary for a dinner in Pecos.

At the business meeting the above program was presented.

Tarrant County Society

February 8, 1951

(Reported by W. P. Higgins, Jr., Secretary)

Mitral Commissurotomy — Robert P. Glover, Hahnemann Medical School, Philadelphia.

The Tarrant County Medical Society met with 240 members and guests present in the Colonial Country Club, Fort Worth, on the occasion of the official opening of the Fort Worth Research Laboratory of the Southwestern Medical School. Carl A. Moyer, Dallas, dean of the school, told the story of the laboratory, beginning with private research in chest surgery by Clive Johnson. Dr. Johnson also spoke, pointing out the difficulties encountered in the work.

Robert P. Glover, the guest speaker, and his associates in Philadelphia probably were the first successfully to operate for the relief of mitral stenosis.

February 20, 1951

Ralph S. Clayton, radiologist at Parkland Hospital, was guest speaker for Tarrant County Medical Society in Fort Worth, February 20. Dr. Clayton pointed out that in the event of an atomic attack, persons outside the immediate blast area probably would not be harmed by radiation because the human body can stand a great deal. He stated that radiation casualties could be evacuated without danger to other persons because gamma activity decays rapidly to tolerance levels. In conclusion, Dr. Clayton said that Americans can learn to live with the risk of an atomic explosion just as they accept the dangers of fire, poison, electricity, automobiles, and sporting firearms.

In connection with treatment in atomic warfare, the society discussed storage of emergency equipment, water supply, and a survey of cities to determine the capacity of each home to absorb casualties and relieve congested hospitals.

Applications of Joseph Carpentieri and Claude Williams were accepted.

March 5, 1951

Mr. Howard Fender, Fort Worth, spoke on the American way of life at the March 5 meeting in Fort Worth of the Tarrant County Medical Society. A question and answer period was held after the speech and Mr. John Renfro entertained with a magician's act.

Preceding the meeting the society had dinner with thirty-two labor leaders as guests.

Tom Green-Eight County Society

February 5, 1951

(Reported by Gordon F. Madding, Secretary)

Conservative Treatment of Low Back Pain—Paul C. Williams, Dallas.

The Tom Green-Eight County Medical Society held its regular meeting February 5. Forty-one members were present and the above scientific program was given.

C. A. Kunath reported on the city-county health unit, but no action was taken on his suggestion that clinics to care for the indigent be organized. Caring for athletic injuries in the high school was discussed by Mr. Pete Sikes. H. M. Anderson moved that the athletic committee be given full authority to work out a solution to the problem; the motion carried.

A letter from George W. Cox, State Health Officer, regarding the advisability of community blood typing to facilitate medical care in the event of an overwhelming number of casualties was read. No action was taken however.

An investigative committee, appointed at the request of the Young Women's Service League, who would be the sponsors of a proposed cerebral palsy clinic in San Angelo, consisted of the following members: Perry Byars, Jr., F. E. Simpson, J. W. Singleton, and E. C. Winkelmann.

A committee composed of the society officers and any other members the president appoints will review and condense problems to be presented at future meetings in order to reduce "long-winded" discussions.

Current military regulations and problems as they affect the local medical society were discussed.

March 5, 1951

(Reported by Gordon F. Madding, San Angelo, Secretary)

Treatment of Pelvic Pain—Willard R. Cooke, Professor of Obstetrics and Gynecology, University of Texas School of Medicine.

At the March 5 meeting of the Tom Green-Eight County Medical Society in San Angelo, a letter from Harvey M. Williams, San Angelo, member of the military affairs committee, was read. A motion that the society go on record as against any doctor in the society being declared essential to his community and then being deferred from any branch of the military service was carried.

A committee to handle problems relative to the care of the indigent was appointed by the president, M. D. Knight, San Angelo. This group is to consist of the permanent committee on indigent care composed of Dr. Knight, R. E. Johnson, V. E. Schulze, F. T. McIntire, and W. H. Brauns, and of additional members including Clay Johnson, Jack Singleton, Milton Cohen, and Carl Kunath, all of San Angelo. Dr. McIntire was named chairman of the committee.

Perry J. C. Byars, Jr., San Angelo, read recommendations of the cerebral palsy committee and the recommendations were accepted.

Travis County Society

March 20, 1951

Newer Concepts of Treatment of Common Disorders of the Thyroid—James E. Kreisle and Richard A. Lucas, Austin.
Current Management of Peptic Ulcers—George E. Clark and George Tipton, Austin.

William C. Adamson, director of the Child Guidance Center, was present at the meeting of Travis County Med-

ical Society, March 20 in Austin to answer questions of members of the society on the center. The above scientific program was presented.

Washington County Society

Officers of the Washington County Medical Society were elected at the recent meeting held in Brenham. These officers are Edwin P. Tottenham, president; W. F. Hasskarl, Jr., vice-president; C. E. Southern, secretary-treasurer; Robert A. Hasskarl, delegate; and Dr. Southern, alternate. Censors are H. O. Hodde, W. A. Knolle, and H. L. Steinbach. All are of Brenham.

Wharton-Jackson-Matagorda-Fort Bend Counties Society

January 9, 1951

Treatment of Eyes—Vernon Black, Wharton.

A talk on "The Treatment of Eyes" was given by Vernon Black, Wharton, on January 9 when thirty-two members of the Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society and the auxiliary met for a regular monthly meeting in El Campo. J. M. Bauknight, Ganado, presided.

Wichita County Society

January 16, 1951

Radioactive Therapy and Medicine—J. R. Maxfield, Dallas.

The first meeting of 1951 of the Wichita County Medical Society was held January 16 at the Wichita Falls Golf and Country Club with the above scientific program being presented.

Wilbarger County Society

February 15, 1951

E. W. Featherston was elected president of the Wilbarger County Medical Society on February 15 in Vernon. Other officers who were reelected included Raymond A. Lemee, secretary, and William C. Coleman, vice-president. J. J. Muirhead was named delegate. Dr. Muirhead was named to serve with Dr. Lemee and Dr. Coleman on the procurement and assignment committee, and B. W. Miller and Joe Shipmann were appointed to the committee on tuberculosis.

DISTRICT SOCIETIES

Second District Society

March 13, 1951

(Reported by James W. Rainer, President)

Invocation—Rev. R. K. Kirk, Midland.
Greetings—Dr. C. S. Britt, Midland.
Basic Concepts of Anemias That Help in Their Diagnosis and Treatment—Lloyd R. Hershberger, San Angelo.
Epilepsy in Children—Gilbert B. Forbes, Dallas.
Management of Congestive Heart Failure—C. Thorpe Ray, New Orleans.
Address—William M. Gambrell, Austin.
The Requirements for the Operation of a Small Community Blood Bank—Lloyd R. Hershberger, San Angelo.
Principles of Surgical Treatment of Cancer—Paul T. DeCamp, New Orleans.
Management of Lower Nephon Syndrome—C. Thorpe Ray, New Orleans.
Use of Radio-Active Iodine in the Study of Thyroid Function in Children—Gilbert B. Forbes, Dallas.
Personal Experience in Management of Gastric Hemorrhage—Tate Miller, Dallas.
Status of Medical Profession in the Present Emergency—Tate Miller.

Approximately 100 doctors met in Midland on March 13 for the Second District Medical Society. Officers elected for the coming year include A. H. Daniell, Brownfield, president; H. P. Redwine, Snyder, vice-president; C. B. Knox, Jr., Seagraves, secretary-treasurer; and R. B. G. Cowper, Big Spring, councilor. The program outlined above was presented.

The Woman's Auxiliary to the Second District Medical Society met for a luncheon and business meeting the same date. A tea honoring Mrs. William M. Gambrell, Austin, President of the Woman's Auxiliary to the State Medical Association, was held. The Auxiliary members joined the doctors for a social hour and dinner.

Ninth District Society

March 8, 1951

(Reported by Lyman C. Blair, Secretary)

Carcinoma of Lung.
Pathology—Stuart A. Wallace, Houston.
Surgery—Oscar Creech, Houston.
Radiologic Diagnosis—David Earl, Houston.
Bronchoscopic Diagnosis—Herbert Harris, Houston.
Carcinoma of Uterine Cervix.
Surgery—C. A. Calhoun, Houston.
Pathology—Dr. Wallace.
Surgery—Carlos Hamilton, Houston.
Radiation Therapy—Dr. Earl.
Carcinoma of Skin and Lip.
Pathology—Dr. Wallace.
Dermatology—Everett R. Seale, Houston.
Surgery—Robert J. Wise, Houston.
Plastic Surgery and Metastases—Bromley S. Freeman, Houston.
Surgery of Bony Invasion—Raymond O. Brauer, Houston.
Surgery and Summary—John Howard, Houston.

F. Ray Black, Huntsville, was elected president of the Ninth District Medical Society at the society's first annual meeting in Huntsville on March 8. Other officers for 1951 are Otto F. Schoenvogel, Brenham, vice-president, and Lyman C. Blair, Houston, secretary-treasurer. J. T. Billups was nominated to succeed himself as Councilor of the Ninth District.

L. E. Bush, Huntsville, retiring president, presided at the meeting and Eugene Addison, Huntsville, gave a welcome address. Dr. Billups outlined the circumstances which led to the organization of the Ninth District Society after which a constitution and by-laws were adopted.

During the business session it was decided that the *Medical Record and Annals* be designated as the official journal of the Ninth District Society. A motion to allow the new officers to set the date and place of the spring meeting was passed. Notice of the meeting is to be sent to members at least three months in advance.

After lunch the society met with the Texas Division of the American Cancer Society. The above scientific program was presented with Dr. Howard of Baylor University College of Medicine acting as moderator.

Eleventh District Society

March 22, 1951

(Reported by John M. Travis, Jr., Secretary)

Symposium: Complications of Pediatrics—Griff T. Ross, Mount Enterprise, coordinator.
Pediatric Emergencies—M. L. Gray, Jacksonville.
Preoperative and Postoperative Care in Pediatric Surgery—L. L. Travis, Jacksonville.
Diagnosis and Treatment of Some Common Skin Diseases of Children—Cone J. Thompson, Jr., Tyler.
Some Common Emotional Problems in Children—Clarence S. Hoekstra, Dallas.
Treatment of Bronchial Asthma in Children—James Holman, Dallas.
Abdominal Surgery in Infants and Newborns—R. M. Moore, Galveston.
Clinical Use of ACTH and Cortisone—Raymond L. Gregory, Galveston.

Approximately sixty physicians attended the spring meeting of the Eleventh District Medical Society in Henderson on March 22. During the business meeting Athens was selected as the site of the fall meeting. The above scientific program was presented. The Woman's Auxiliary to the Eleventh District Society met with the members of the society for the evening banquet, at which the Rev. Marvin Vance, pastor of the First Methodist Church, Austin, was speaker.

AUXILIARY SECTION

AUXILIARY NEWS

Angelina County Auxiliary

Officers of the Angelina County Auxiliary elected recently are Mrs. A. Edward Percy, president; Mrs. T. A. Taylor, vice-president; and Mrs. J. H. Alexander, secretary-treasurer, all of Lufkin. Mrs. A. E. Sweatland, Lufkin, was hostess for the February meeting and Mrs. M. A. Estep was co-hostess. The guest speaker, Mrs. Agnes B. Grimland, superintendent of the Angelina County Hospital, discussed with the members the shortage of nurses, suggesting that the auxiliary encourage organization of a vocational nursing course in the local high school.—Mrs. W. D. Thames, Jr., Secretary.

Brazos-Robertson Counties Auxiliary

David Brown, director of the Bryan Public Health Unit, outlined duties of the department at a meeting of the Brazos-Robertson Counties Auxiliary January 18 in the home of Mrs. R. B. Grant, Bryan. Dr. Brown pointed out that the duties of the department included testing milk and water, inspecting meats, inspecting eating places, maintaining a venereal disease clinic, giving examinations to all food handlers every six months, and assisting doctors in controlling communicable diseases.

Mrs. L. D. Stuart conducted the business meeting. Mrs. Grant announced a cancer clinic to be held in Bryan January 22-24 at which members of the auxiliary were to act as hostesses. Mrs. D. W. Andres told plans for a crippled children's clinic scheduled for May and Mrs. T. O. Walton, Jr., reminded members that their families and household servants should have a physical examination at least once a year. A nominating committee composed of Mesdames Grant, Walton, and J. E. Marsh, College Station, was named. Mrs. David Brown, co-hostess, assisted in serving refreshments.

Caldwell County Auxiliary

Officers of the Woman's Auxiliary to the Caldwell County Medical Society elected in February include Mrs. A. A. Ross, Jr., Lockhart, president; Mrs. E. P. Waller, Luling, vice-president; Mrs. J. Turner O'Banion, Luling, secretary; and Mrs. O. K. Du Boise, Lockhart, treasurer. Mrs. O'Banion will serve as bulletin chairman for the year.

Current legislation was discussed at the business meeting in the home of Mrs. Ross in Lockhart. Plans also were discussed for showing a movie on nursing education to senior and junior girls in Lockhart and Luling High Schools.—Mrs. A. A. Ross, Jr., secretary.

Cameron-Willacy Counties Auxiliary

Mrs. William M. Gambrell, Austin, President of the Woman's Auxiliary to the State Medical Association, was guest of the Woman's Auxiliary to the Cameron-Willacy Counties Medical Society on January 29 at a luncheon in San Benito. Wives of thirty physicians from Raymondville, Harlingen, San Benito, Mercedes, and Brownsville attended.

Mrs. Gambrell spoke on the responsibilities of good citizenship and urged each member to become an active citizen.

Cherokee County Auxiliary

Members of Cherokee County Auxiliary were hostesses at a banquet February 27 in Jacksonville honoring doctors of Cherokee County Medical Society. The Rev. Hoyt Boles, Denton, was speaker at the banquet, which approximately ninety doctors and wives attended.

A musical program was presented by Miss Anne Thompson, Marvin Kimmey, and Miss Wevan Brewer, students at Lon Morris College. Dr. J. M. Travis, Jacksonville, introduced special guests, Mr. and Mrs. B. A. Laurie and Mrs. Boles. Mr. Boyles was introduced by Dr. L. L. Travis, Jacksonville. Mrs. Marvin Lamb and Mrs. J. T. Boyd were program chairmen.

DeWitt-Lavaca Counties Auxiliary

Guests at the quarterly business meeting of DeWitt-Lavaca Counties Auxiliary held January 27 in Yoakum were Mrs. William M. Gambrell, Austin, President of the Woman's Auxiliary to the State Medical Association; Mrs. R. T. Wilson, Austin, publicity secretary; and Mrs. A. H. Neighbors, Austin, Seventh District Council Woman.

Mrs. E. H. Marek, Yoakum, presided. Officers to be installed after the state convention are Mrs. L. B. S. Richter, Yoakum, president; Mrs. F. A. Prather, Cuero, first vice-president; Mrs. Harvey Renger, Hallettsville, second vice-president; Mrs. J. W. Boyle, Shiner, president-elect; Mrs. J. E. Trott, Yoakum, secretary-treasurer; and Mrs. Marvin G. Duckworth, Cuero, parliamentarian.—Mrs. Harvey Renger, Jr., secretary.

Galveston County Auxiliary

Dr. Virginia Blocker, Galveston, was guest speaker at a coffee given by the Woman's Auxiliary to the Galveston County Medical Society on February 20 at the United States Marine Hospital in Galveston. Mrs. Harold D. Lyman and Mrs. G. W. N. Eggers were chairmen of arrangements, and reservations were handled by Mrs. Edgar F. Jones and Mrs. Peter Kamin.

A panel discussion on health facilities available in Galveston County took place with Mesdames Charles R. Allen, William M. Shanahan, and John McGivney and Dr. Patti Dodson participating. Special guests were Mrs. Edward M. Shapiro, president of the Medical Dames; new members, who included Mesdames E. A. Blackburn, Jr., George D. Ford, James H. Hejtmancik, Milton R. Hejtmancik, Ira J. Jackson, S. H. Jaynes, L. R. Lancaster, E. A. Carmignani, C. C. Morris III, Joe C. Rude, Vernie A. Stembridge, and R. H. Gibbs; and wives of the Marine Hospital personnel.

Hunt-Rockwall-Rains Counties Auxiliary

Mrs. Grady Bruce was elected president of the Hunt-Rockwall-Rains Counties Auxiliary at a meeting March 14 in the home of Mrs. H. E. Mehmert in Greenville. Other officers for 1951 are Mrs. Frank Little, first vice-president; Mrs. H. E. Mehmert, second vice-president; Mrs. S. D. Whitten, third vice-president; Mrs. F. S. Carruthers, recording secretary; Mrs. Ralph Jenks, corresponding secretary; Mrs. C. B. Weis, treasurer; Mrs. C. T. Kennedy, Sr., parliamentarian; Mrs. John Vallancey, historian; and Mrs. M. L. Wilbanks, publicity secretary. All are of Greenville. Mrs. J.

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. William M. Gambrell, Austin; President-Elect, Mrs. O. W. Robinson, Paris; First Vice-President (Organization), Mrs. J. H. McCracken, Dallas; Second Vice-President (Physical Examinations), Mrs. Allen T. Stewart, Lubbock; Third Vice-President (Today's Health), Mrs. Joe T. Nichols, Atlanta; Fourth Vice-President (Program), Mrs. Carlos Hamilton, Houston; Recording Secretary, Mrs. E. W. Coyle, San Antonio; Treasurer, Mrs. John D. Gleckler, Denison; Corresponding Secretary, Mrs. William P. Morgan, Austin; Publicity Secretary, Mrs. R. T. Wilson, Austin; Parliamentarian, Mrs. Robert F. Thompson, El Paso.

W. Ward and Mrs. C. T. Kennedy, Sr., were named delegates to the City Federation; alternates are Mrs. H. W. Maier and Mrs. Will Cantrell.

Mrs. Carruthers gave the devotional and members answered to roll call with items from *Today's Health*. Mrs. E. T. Crim read an article entitled "I Wanted to Know." Mrs. William Mitchell presided in the absence of Mrs. Joe Becton. Refreshments were served by the hostesses, Mesdames Mehmert, Mitchell, H. L. LyBrank, Julia Mehmert, and J. S. Cooper.

Kerr-Kendall-Gillespie-Bandera Counties Auxiliary

Tod Bates, Austin, Executive Secretary of the State Medical Association, spoke on current legislation at the March 15 meeting of the Kerr-Kendall-Gillespie-Bandera Counties Auxiliary in Kerrville. Hostesses were Mesdames Dwight Knapp, A. P. Allison, Clarence McClellan, A. J. Black, W. L. Secor, and H. P. Reid, all of Kerrville. Mrs. William Hentel, Legion, and Mrs. L. A. Feller, Fredericksburg, presided at the tea table. At the business meeting it was reported that the tuberculosis fund had provided 800 patch tests and 87 roentgenograms. Six physical examinations were reported.—Mrs. Hugh A. Drane, Jr.

Lamar County Auxiliary

Election of officers was held at the February covered dish luncheon of the Lamar County Auxiliary in the home of Mrs. D. F. Kerbow, Paris.

New officers of the Auxiliary include Mrs. C. E. Gilmore, president; Mrs. N. L. Barker, president-elect; Mrs. C. D. Barker, first vice-president; Mrs. Thomas Hunt, Jr., second vice-president; Mrs. H. W. Parchman, third vice-president; Mrs. J. A. Stephens, secretary-treasurer; Mrs. W. L. Kelley, reporter and bulletin chairman; and Mrs. W. W. Fitzpatrick, parliamentarian, all of Paris.

A treasurer's report was given by Mrs. E. P. Dickson and other committee reports were submitted. Revised editions of the constitution and by-laws for the Woman's Auxiliary to the State Medical Association were presented to the members. Fourteen members and one guest, Mrs. F. Parks Ogden, Louisville, Ky., were present.

Navarro County Auxiliary

J. Wilson David, Corsicana, Councilor of the Twelfth District, was host for a luncheon February 16 in Corsicana honoring wives of members of the Navarro County Medical Society.

Guests were Mrs. William M. Gambrell, Austin, President of the Woman's Auxiliary to the State Medical Association; Mrs. Joe H. McCracken, Jr., Dallas, first vice-president and chairman of organization; Mrs. John E. Talley, Waco, council woman of the Twelfth District, and Mrs. F. F. Kirby, Waco.

Mrs. McCracken gave suggestions for the organization of an auxiliary to the county medical society. Mrs. C. L. Gary, Jr., was named chairman; Mrs. O. C. Bowmer, vice-president; and Mrs. S. H. Burnett, secretary-treasurer.

Organization was completed at a meeting March 9 in the home of Mrs. W. W. Carter. Mrs. Gary was elected president; and Mrs. Paul H. Mitchell, corresponding secretary. Mrs. Dan Hamill was appointed legislative chairman. All officers are of Corsicana.

Reeves-Ward-Winkler-Loving-Culberson-Hudspeth Counties Auxiliary

Officers for 1951 were nominated by the Woman's Auxiliary to the Reeves-Ward-Winkler-Loving-Culberson-Hudspeth Counties Medical Society at a meeting February 15 preceded by a dinner with members of the medical society. Plans were made for a forthcoming visit of Mrs. William M. Gambrell, Austin, President of the Woman's Auxiliary to the State Medical Association. Mrs. W. H. McClure reported that fifty-four members had taken part in the project to encourage every member of a physician's family to take a yearly physical examination.

Travis County Auxiliary

The Woman's Auxiliary to the Travis County Medical Society entertained members and guests with a style show-luncheon February 12 at the Austin Country Club.

A patriotic motif was carried out in the decorations. Models for the style show were members of the auxiliary. After the luncheon a business meeting was held at which officers were elected. These include Mrs. Joe T. Gilbert, president; Mrs. A. H. Neighbors, Jr., president-elect; Mrs. James Herrod, first vice-president; Mrs. T. J. Archer, Jr., second vice-president; Mrs. G. G. Zedler, secretary; Mrs. Charles B. Dildy, treasurer; and Mrs. Terence Watt, publicity secretary. All reside in Austin—Mrs. M. A. Forbes, Jr.

Wharton-Jackson-Matagorda-Fort Bend Counties Auxiliary

Miss Gladys Bowers, Old Ocean, freshman student at Wharton County Junior College, has been awarded a scholarship from the Wharton - Jackson - Matagorda - Fort Bend Counties Auxiliary. Miss Bowers, who is a nursing technician student, will continue her studies on the scholarship. She was presented to members of the auxiliary at a coffee January 16 in the home of Mrs. F. J. L. Blasingame, Wharton.

Wichita County Auxiliary

John Gould, editorial writer for the Times Publishing Company, was guest speaker at the annual "Guest Day" tea of the Wichita County Auxiliary held February 13 in Wichita Falls.

Hostesses were Mesdames C. E. Mangum, Owen Berg, A. W. Pierce, W. E. Crump, O. H. Trimble, C. R. Hartsook, F. R. Landon, George Slaughter, Claud Wilson, H. P. Ledford, W. L. Parker, and W. L. Rector.

Second District Auxiliary

The Woman's Auxiliary to the Second District Medical Society met conjointly with the society in Midland on March 13. A luncheon, business meeting, and a tea honoring Mrs. William M. Gambrell, Austin, President of the Woman's Auxiliary to the State Medical Association, were held. The auxiliary members joined the doctors for a social hour and dinner.

Seventh District Auxiliary

A meeting to organize a Woman's Auxiliary to the Seventh District Medical Society was held February 21 at a tea in the home of Mrs. A. H. Neighbors, Sr., Austin, Seventh District Council Woman. Mrs. Neighbors was appointed temporary chairman. Guests were Dr. and Mrs. William M. Gambrell, Austin, Presidents of the State Medical Association and Woman's Auxiliary to the State Medical Association, and Dr. J. J. Johns, Taylor, Councilor for the Seventh District.—Mrs. M. A. Forbes, Jr.

Eighth District Auxiliary

Members of the Auxiliary to the Eighth District Medical Society met January 17 in the home of Mrs. F. J. L. Blasingame, Wharton, with members of the Wharton-Jackson-Matagorda-Fort Bend Counties Auxiliary as hostesses. Guest for the occasion was Mrs. William M. Gambrell, Austin, President of the Woman's Auxiliary to the State Medical Association. Mrs. Gambrell spoke on citizenship, pointing out women's responsibility to work for or against legislation that strengthens or weakens Christian democracy.

Serving at the coffee were Mesdames Alex Rugeley, Henry Novosad, Frank Rugeley, and George Kopecky.

DEATHS

W. S. PARKS, SR.

Dr. Walter Samuel Parks, Sr., Breckenridge, Texas, died in an Abilene hospital December 23, 1950, from the results of a stroke suffered about ten days earlier.

Born October 10, 1889, near Breckenridge, Dr. Parks was the son of Samuel and Elizabeth Parks. He attended Red Gap and Breckenridge schools; North Texas State Teachers College, Denton; and Baylor University, Waco, prior to teaching school at Grand Prairie and Breckenridge. In 1918 he entered the United States Army and served as an instructor in artillery and as a medical corpsman. After World War I he completed premedical training at the University of Texas, Austin, and obtained his medical degree from the

DR. W. S. PARKS, SR.

University of Texas Medical Branch, Galveston, in 1923. After an internship at St. Joseph Hospital, Houston, he opened his office in Breckenridge, where he was in general practice for twenty-five years.

Dr. Parks was a member of the State Medical Association and American Medical Association through the Stephens-Shackelford-Throckmorton Counties Medical Society. He was president of the county society in 1936, 1944, and 1948. He was also a member of the Thirteenth District Medical Society and Nu Sigma Nu medical fraternity. A member of the board of stewards of the First Methodist Church, Dr. Parks was past commander of the Bernice Cole Post of the American Legion and a member of the Elks, Knights of Pythias, and Rotary Club.

In Fort Worth in 1918, Dr. Parks married Miss Mamie Kate Walker, who survives. Also surviving are a daughter, Mrs. Sam Ross Sloan, Jr., Breckenridge; two sons, Dr. W. S. Parks, Jr., Fort Worth, and W. H. Parks, Wheeler; five sisters; and two brothers.

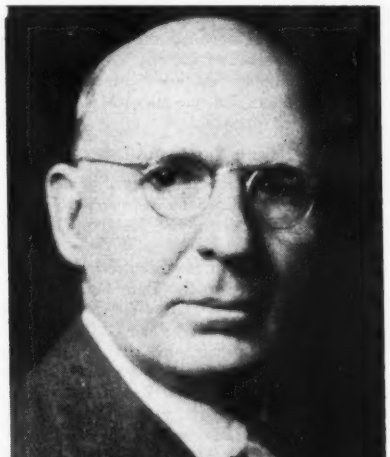
An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

W. C. MORROW

Dr. Wiley C. Morrow, Greenville, Texas, died January 6, 1951.

The son of Dr. Harrison and Sara Frances Morrow, Dr. Morrow was born October 27, 1877, in Fannin County near Leonard. He attended Grayson College at Whitewright, then went to the Eclectic School of Medicine, St. Louis, and the Georgia Eclectic College of Medicine and Surgery, Atlanta, receiving his medical degree from the latter institution in 1901. He practiced for two years in Valley View and fifteen in Trenton before moving to Greenville more than thirty years ago. At the time of his death, Dr. Morrow was district surgeon for the St. Louis Southwestern Railway lines, division surgeon for the Kansas City Southern Railway, examining surgeon for the Southern Pacific Railway, and local surgeon for the Missouri-Kansas-Texas Railway. He was on the staff of the Greenville venereal diseases clinic.

For many years Dr. Morrow had been a member of the State Medical Association and American Medical Association, first through Fannin County Medical Society and then through the Hunt-Rockwall-Rains Counties Medical Society. He had served the latter group, as well as the Eclectic Medical Society and the Fourteenth District Medical Society, as



DR. W. C. MORROW

president. He was on the Texas State Board of Medical Examiners. Dr. Morrow was a member of the Masonic Lodge, Woodmen of the World, Knights of Pythias, and Odd Fellows.

Survivors include Dr. Morrow's wife, the former Miss Katie Stapp, whom he married June 6, 1897, in Trenton; three daughters, Mrs. Hermann Winans and Mrs. Harmon Young, both of Greenville, and Mrs. Burgher Reed, Trenton; and one sister, Mrs. Hall Melugin, Corpus Christi.

J. E. BEALL

Dr. Judson Exum Beall, Pearsall, Texas, died December 2, 1950, of anaphylactic shock.

Dr. Beall was born October 14, 1880, in Willis, Montgomery County, the son of J. F. and Cordelia Beall. He attended the Baptist College at Rusk and was graduated in medicine from the medical department of Southern Methodist University, Dallas, in 1911. He did postgraduate work in surgery and was a resident in surgery at Cook County Hospital, Chicago, and also served a residency at Charity Hospital, New Orleans. After practicing a short period in

DR. J. E. BEALL

Cherokee County, Dr. Beall moved to Pearsall, where he did general practice and surgery and served several times as county health officer.

Throughout his professional career Dr. Beall was a member of the LaSalle-Frio-Dimmit Counties Medical Society, State Medical Association, and American Medical Association. He was a thirty-second degree Mason and was a member of the Presbyterian Church.

Dr. Beall married Miss Effie O. Fitch on April 3, 1904, in Summerfield. Mrs. Beall; two sons, Dr. Wendell E. Beall, Pearsall, and L. Hollis Beall, Crockett; and two brothers, Frank Beall, Nacogdoches, and Elbert Beall, Refugio, survive.

J. A. SMITH

Dr. James Augustus Smith, Hearne, Texas, died in a Fort Worth hospital December 31, 1950, of chronic bronchitis.

Born December 7, 1875, in Scott County, Miss., Dr. Smith was the son of Mr. and Mrs. James Smith. In 1899 he was graduated from the Vanderbilt University School of Medicine in Nashville, Tenn., and practiced in McAlester, Okla., Roswell, N. Mex., and Abilene, as well as other Texas towns before moving to Hearne in 1945.

A member of the State Medical Association successively through several county societies, the last of which was the Brazos-Robertson Counties Medical Society, Dr. Smith was elected to honorary membership in the State Medical Association in 1950. He was a member of the American Medical Association, the Baptist Church, the Masonic Order, and the Order of the Eastern Star.

Dr. Smith is survived by his wife, the former Mrs. Georgia Marshall Vaughn, whom he married in Sulphur Springs. Other survivors are three sons, Jack D. Smith, Flushing, N. Y., James B. Smith, Spokane, and Paul A. Smith, Helena, Ark.; two daughters, Mrs. Walter Rose, Oklahoma City, and Mrs. Fred Buol, Jacksonville, Fla.; two stepsons, Roy Vaughn, Tyler, and Dr. Elbert Winingham, Oklahoma City; two stepdaughters, Mrs. Mildred Pursley, Hearne, and Mrs. Reba Ferguson, Houston; and a brother, C. H. Smith, Duncan, Okla.

W. C. LEDBETTER

Dr. W. C. Ledbetter, Bristol, Texas, died December 28, 1950, in Dallas of a heart attack.

Born October 29, 1879, in Summerfield, La., Dr. Ledbetter moved with his parents to Tioga, Texas, where he

DR. W. C. LEDBETTER

attended school. After fighting in Cuba during the Spanish-American War, he attended Baylor University, Waco; Vanderbilt University, Nashville, Tenn.; and Memphis Hospital Medical College, Memphis, Tenn. He started practice in Dorchester, but moved in 1910 to Bristol, near Ennis, where he was active until shortly before his death. He was a member of the State and American Medical Associations through Ellis County Medical Society.

Dr. Ledbetter is survived by his wife, the former Miss Mary Anna Coffey, whom he married in Bristol in 1942, and one sister, Mrs. Effie Webb, Gainesville.

ALBERT GREER

Dr. Albert Greer, Henrietta, Texas, died December 3, 1950, of injuries received in an automobile accident.

Born May 20, 1878, in Appleby, he was the son of John and Jane (Legg) Greer. He received his early education in Nacogdoches and was graduated from Barnes Medical College, St. Louis, in 1908, after which he did postgraduate work in the Medical Department of Tulane University of Louisiana, New Orleans. He practiced in Crosbyton and Newport before moving in 1914 to Henrietta, where he practiced until his death. He was a staff member of the Clay County Memorial Hospital, Henrietta, as well as Bethania Hospital and Wichita Falls General Hospital,

Wichita Falls. Dr. Greer was a former county health officer and, at the time of his death, was city health officer, an office which he held for more than twenty years.

A fellow of the American Medical Association, he was a member of the State Medical Association through Clay-Montague-Wise Counties Medical Society, of which he was president in 1939 and secretary in 1933. He was a member of the Knights Templar and the Shrine, the Chamber of Commerce, and on the board of directors of the First National Bank. He served as medical examiner for the Selective Service Board during World Wars I and II and was a medical adviser for the board in 1949. Dr. Greer held membership in the American Association of Railway Surgeons and was surgeon for the Fort Worth and Denver City and the Missouri-Kansas-Texas Railroads.

On June 13, 1906, he married Miss Emma Pickens in Newport. Dr. Greer is survived by his wife, a son, David A. Greer, Henrietta; two brothers, David Greer and Dick Greer, Nacogdoches; a sister, Mrs. Elma Armfield, Nacogdoches; and two grandchildren.

R. A. FARMER

Dr. Robert Allen Farmer, Grapeland, Texas, died in a Crockett hospital December 26, 1950, of injuries resulting from an automobile accident.

Born in Fort Bend County, October 2, 1882, Dr. Farmer was the son of Henry R. and Maria Farmer. He was graduated from the University of Texas School of Medicine in 1910 and practiced in Needville, Richmond, and West Columbia before moving to Grapeland ten years ago.

Dr. Farmer had been a member of the American Medical Association and the State Medical Association through

DR. R. A. FARMER

the Brazoria County, Fort Bend County, and Anderson-Houston-Leon Counties Medical Societies.

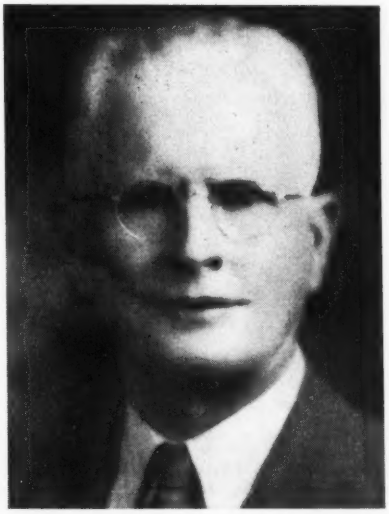
Serving for four years on the school board in Grapeland, Dr. Farmer was interested in improvement of the Negro educational system. He was a member of the Baptist Church and had been a member of the Masonic Lodge and Order of the Eastern Star, West Columbia; the Arabia Temple Shrine, Houston; and Scottish Rite Bodies, Galveston.

In Palestine, Texas, on July 23, 1941, Dr. Farmer married Mrs. Anna Pearl Sanchez, who survives. Other survivors are a son, H. R. Farmer of Boling; two stepchildren, M. A. Sanchez and Miss Delores Sanchez, Grapeland; a brother, E. D. Farmer, El Campo; and a sister, Mrs. Annie McMicken, Mercedes.

G. E. TUCKER

Dr. George Evans Tucker, Anthony, N. Mex.-Texas, died at his home January 13, 1951, of coronary occlusion.

Born near Athens, Ala., December 9, 1879, Dr. Tucker was the son of James M. and Rachel (Barber) Tucker. He attended the Eighth District Agricultural School of Athens and received his medical education at the Medical Department of the University of Alabama, Mobile, and the University of Arkansas School of Medicine, Little Rock, from which he was graduated in 1914. During his school years in Little Rock, he interned at the Arkansas State Hospital. Dr. Tucker practiced in Roland and Bigelow, Ark., and in



DR. G. E. TUCKER

El Paso before moving to Dolores, Chihuahua, Mexico, where he was physician for a mining corporation until 1926; he then began his practice in Anthony. Dr. Tucker was a captain in the medical corps of the Texas State Guard.

In 1949 Dr. Tucker was elected to honorary membership in the State Medical Association and was an honorary member of the El Paso County Medical Society. He was a member of the American Medical Association and the Southwestern Medical Association. Dr. Tucker was a thirty-second degree Mason, a member of the El Paso Consistory of Scottish Rite Masons, El Maida Shrine, past president of the Anthony Lions Club, and a member of the Methodist Church. For thirty-five years Dr. Tucker had been active in the Boy Scout program; he was a director of the Yucca Council of Boy Scouts.

In 1917 Dr. Tucker married Mrs. Rosalie Frohlich Cantrell of Lonoke, Ark., who survives. Other survivors are a daughter, Mrs. Paul Demeter, Orinda, Calif.; a brother, Thomas W. Tucker, Athens, Ala.; and two grandchildren, three nephews, and one niece.